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Figure 1

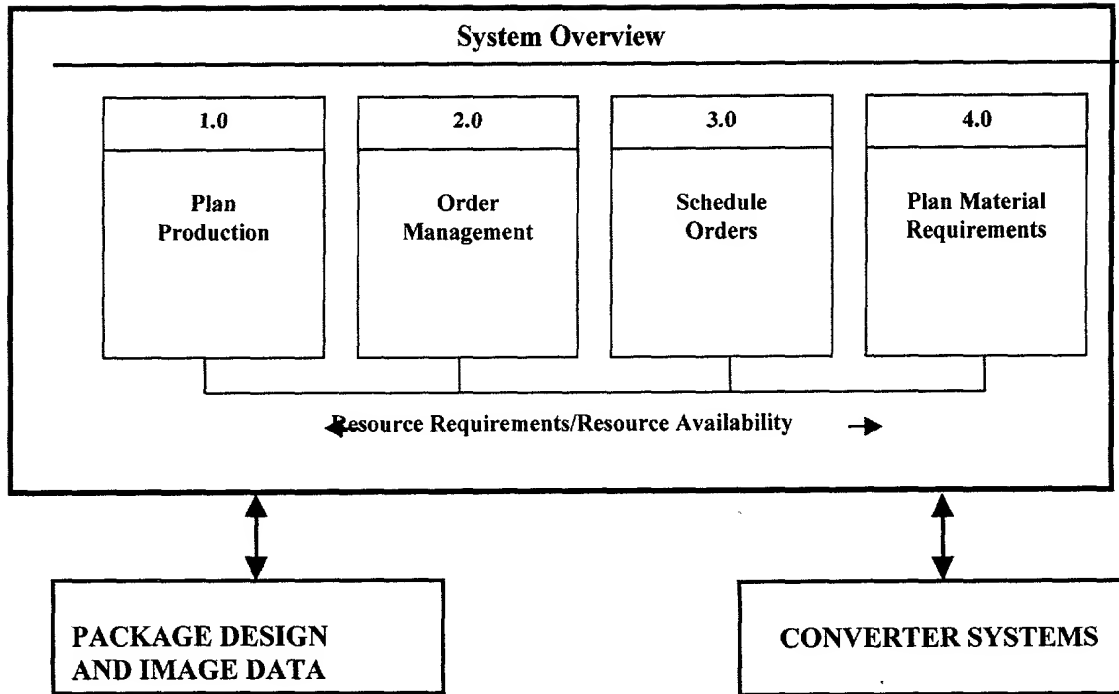
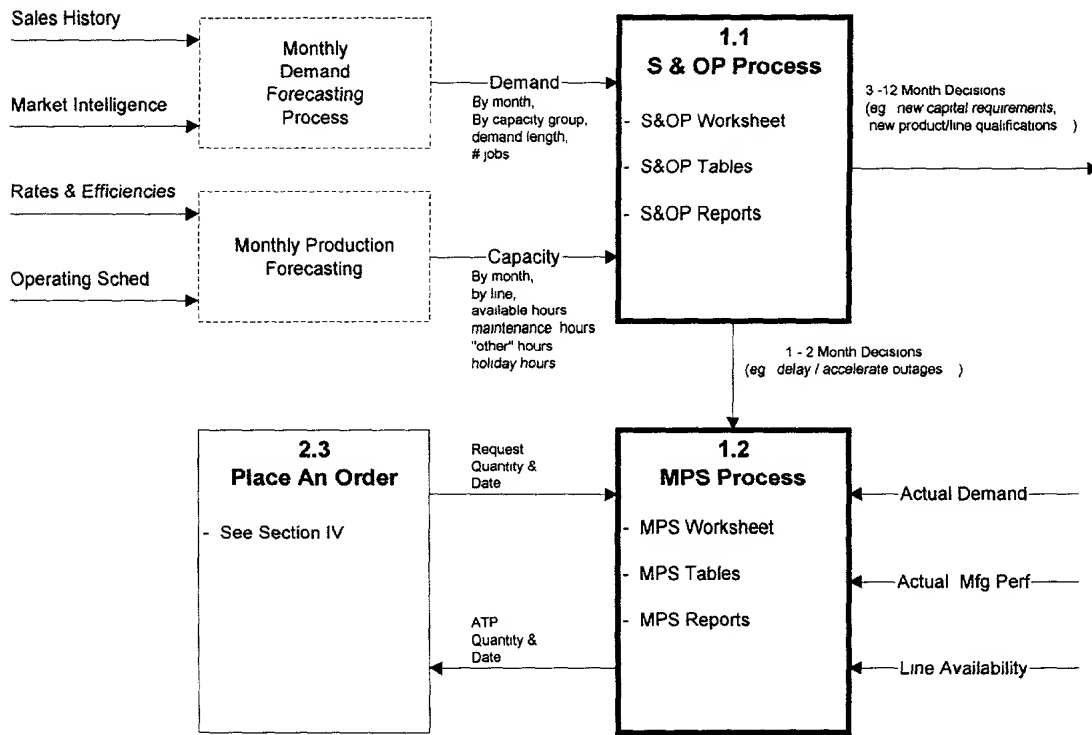


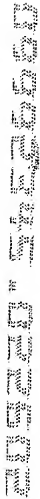
Figure 2

### Production Planning Functional Overview

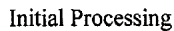


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## Sales And Operations Planning (Process 1.1)



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- ## User Workflow & Resultant Processing

- Notes:

- Notes:

- The user may elect to enter data by row or by column, screen operation should allow both using standard navigation: <enter> moves down a cell, <tab> moves over a cell
- Screen should be horizontally and vertically scrollable

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**Figure 3B**  
**Transaction Summary – S&OP Line Availability (Process 1.1.2)**

**Plan Capacity - S & OP Line Availability**

myLogo Professional Services Go to... 04 06 00 16:54 Actual Information

Home  
Plan capacity  
Take Order  
Schedule Order  
Procure Raw Materials

**Plan Capacity - S & OP Line Availability**

Month

| Line  | Category  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  |
|-------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| L 114 | Gross Hrs | 744 | 672 | 744 | 720 | 744 | 720 | 744 | 720 | 744 | 720 | 744 | 720 |
|       | Maint Hrs | 12  | 0   | 0   | 0   | 24  | 0   | 0   | 12  | 0   | 0   | 0   | 0   |
|       | Exp Hrs   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|       | Other Hrs | 0   | 4   | 0   | 0   | 0   | 4   | 0   | 0   | 0   | 4   | 0   | 0   |
|       | Holiday   |     |     |     |     |     |     |     |     |     |     |     |     |
|       | Net Hrs   | 708 | 668 | 744 | 712 | 696 | 716 | 744 | 732 | 688 | 740 | 672 | 696 |
| L 113 | Gross Hrs | 744 | 672 | 744 | 720 | 744 | 720 | 744 | 720 | 744 | 720 | 744 | 720 |
|       | Maint Hrs | 0   | 12  | 0   | 0   | 0   | 24  | 0   | 0   | 0   | 0   | 0   | 0   |
|       | Exp Hrs   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|       | Other Hrs | 0   | 4   | 0   | 0   | 0   | 4   | 0   | 0   | 0   | 4   | 0   | 0   |
|       | Holiday   |     |     |     |     |     |     |     |     |     |     |     |     |
|       | Net Hrs   | 744 | 656 | 740 | 696 | 744 | 692 | 744 | 736 | 720 | 740 | 720 | 744 |

CONFIDENTIAL Screen No **Plan 1.1.2**

**Initial Processing**

- Lookup all records on Table 1.1.2 using converter\_no from login
- Setup display to include 12 months of data starting with the current month
- Lookup gross hours and holiday hours in the month\_db using month and year
- Create any records that do not exist and fill Maintenance hours, Exp hours, Other Hrs, with zero's
- Calculate Net Hrs = Gross Hrs – Maint Hrs – Exp Hrs – Other Hrs – Holiday Hrs

**User Workflow & Resultant Processing**

- Typical
  - Place cursor on the Maint Hrs for the first production line (row) of the month (column) for which you want to enter data
  - Enter Maint Hrs <enter>
  - Cursor moves to the next field in this column (Exp Hrs)
  - Enter Exp Hrs <enter>
  - Cursor moves to the next field in this column (Other Hrs)
  - Enter Other Hrs <enter>
  - Calculate Net Hrs = Gross Hrs – Maint Hrs – Exp Hrs – Other Hrs – Holiday Hrs
  - Continue down column to next line
- Exceptional
  - Point and click to select individual cell
  - Change value in cell

**Notes:**

- The user may elect to enter data by row or by column, screen operation should allow both using standard navigation: <enter> moves down a cell, <tab> moves over a cell
- Screen should be horizontally and vertically scrollable

**Figure 3C**  
**Transaction Summary – S&OP Line Rates And Efficiencies (Process 1.1.3)**

**Plan Capacity - S & OP Line Rates And Efficiencies**

myLogo MYMANTIC SYSTEMS Professional Services [Go to...] 04/06/00 16:54 Actual Information

Home  
Plan capacity  
Take Order  
Schedule Order  
Procure Raw Materials

**Plan Capacity - S & OP Line Rates and Efficiencies**

Month: May  
Year: 2000

| Class of Demand | L112 |     |      | L113 |     |      | L114 |     |      |
|-----------------|------|-----|------|------|-----|------|------|-----|------|
|                 | LS   | ME  | CO   | LS   | ME  | CO   | LS   | ME  | CO   |
| 10S             | 325  | 88% | 2    | 350  | 89% | 1.75 | 0    | 0%  | 0    |
| 8S              | 350  | 88% | 1.5  | 0    | 0%  | 0    | 325  | 88% | 1.5  |
| 8S/CS           | 0    | 0%  | 0    | 250  | 85% | 2.25 | 0    | 0%  | 0    |
| 6S/P3           | 400  | 90% | 1.25 | 0    | 0%  | 0    | 375  | 90% | 1.25 |
| Pool            | 375  | 88% | 1.25 | 400  | 89% | 1.25 | 350  | 88% | 1.25 |

CONFIDENTIAL Screen No **Plan 1.1.3**

**Initial Processing**

- Default month and year to current month and year
- Lookup all records on Table 1.1.3 using converter\_no from login and current month and year

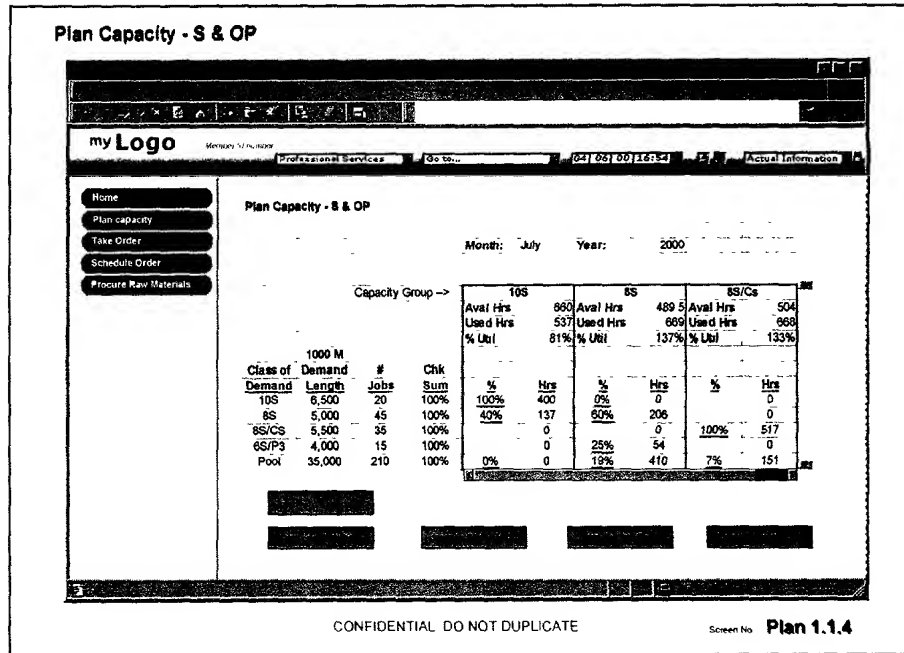
**User Workflow & Resultant Processing**

- Typical
  - Enter month, enter year
  - Place cursor on cell you want to change
  - Enter new data

**Notes:**

- The user may elect to enter data by row or by column, screen operation should allow both using standard navigation: <enter> moves down a cell, <tab> moves over a cell
- Screen should be horizontally and vertically scrollable
- "LS" = Line Speed, "ME" = Material Efficiency, "CO" = Changeover Downtime (Average Per Job)

**Figure 3D**  
Transaction Summary – S&OP Model (Process 1.1.4)



**Initial Processing**

- Lookup Average Material Efficiency(ME), Line Speed (LS) and Changover Time (CO) for each class of demand in Table 1.1.7 using Converter\_no, Month, Year, Class of Demand
- Lookup and display percent demand in table 1.1.4 using Converter\_no, Month, Year, Capacity Group
- Lookup demand and # of jobs in table 1.1.1 using Converter\_no, Month and Year
- Lookup inventory draw and build from Table 1.1.5 using converter\_no, month, year.
- Use inventory build or draw to adjust demand from Table 1.1.1 lookup.  
Adjusted demand = demand (table 1.1.1) + demand build (table 1.1.5) – demand draw (table 1.1.5).
- Display adjusted demand and # of jobs.  
Demand = Demand (table 1.1.1) + Demand build (table 1.1.5) – Demand draw (table 1.1.5).
- Lookup and display Avail Hrs in Table 1.1.6 using Month, Year and Capacity Group
- Calc and display Hrs =  $(D \cdot 1000 \cdot P / (ME \cdot LS \cdot 60)) + (\#Jobs \cdot P \cdot CO)$  (D=Demand, P=Percent)
- Calc and display Used Hrs = Sum of Hrs In Each Capacity Group
- Calc and display Utilization = Demand / Capacity

**User Workflow & Resultant Processing**

- Typical
  - Copy forward percentages from last month
  - Adjust percent demand to balance capacity
  - Commit Changes

**Figure 3D (Continued)**  
**Transaction Summary – S&OP Model (Process 1.1.4)**

Notes:

- Screen should be horizontally and vertically scrollable
- Action button to copy last months %'s
- Screen should have easy links back to Availability Detail, and Capacity Group Data
- Screen should have a commit button



**Figure 3E**  
**Transaction Summary – S&OP Inventory Draw Or Build (Process 1.1.5)**

**Plan Capacity - S & OP Inventory Build Or Draw**

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**my Logo**    Menu / M Number    Professional Services    Go to...    04/05/00 16:54    Actual Information

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**Home**

**Plan Capacity**

**Take Order**

**Schedule Order**

**Procure Raw Materials**

**Plan Capacity - S & OP Inventory Draw Or Build**

Month:     Year:

| Class of Demand | Draw       |        | Build      |        | Comments                            |
|-----------------|------------|--------|------------|--------|-------------------------------------|
|                 | Time (Hrs) | Length | Time (Hrs) | Length |                                     |
| 10S             | 20         |        |            |        | Draw from last months Mem Day Build |
| BS              |            |        |            |        |                                     |
| BS/CS           |            |        | 15         |        | Build for Back To School            |
| BS/P3           |            |        |            |        |                                     |
| Pool            |            |        |            |        |                                     |

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CONFIDENTIAL    Screen No    **Plan 1.1.5**

**Initial Processing**

- Set month and year to current month and year unless access from 1.1.4. If access from 1.1.4 set month and year to month and year used at the time of the call from 1.1.4.
- Lookup all records on Table 1.1.7 using converter\_no from login and current month and year for all capacity groups
- Lookup all records on Table 1.1.5 using converter\_no from login and current month and year

**User Workflow & Resultant Processing**

- Typical
  - Enter month, enter year
  - Place cursor on cell you want to change
  - Enter new data
  - System calculates length  
 Length = (time \* 60) \* Average LS for this capacity group

**Notes:**

- None

**Figure 3F**

**Transaction Summary – S&OP Adjust Line Allocation To Capacity Groups (Process 1.1.6)**

**Plan Capacity - S & OP Line Allocation To Capacity Groups**

my Logo Menu of choice Professional Services [Go to] .04 06 00 16:54 Actual Information

Home  
Plan capacity  
Take Order  
Schedule Order  
Procure Raw Materials

Month: May  
Year: 2000

|     |     |     |
|-----|-----|-----|
| 50% | 50% | 0%  |
| 50% | 0%  | 25% |
| 0%  | 25% | 0%  |
| 0%  | 0%  | 50% |
| 0%  | 25% | 25% |

CONFIDENTIAL Screen No **Plan 1.1.6**

**Initial Processing**

- Default and display month and year to current month and year
- For converter-no from login and current month and year, lookup:
  - Table 1.1.2 (available hours for each line)
  - Table 1.1.3 (LS, ME, CO by line by capacity group)
  - Table 1.1.6 (all existing entries)
  - Table 1.1.7 (Total Hrs by class of demand)
- Display all Table 1.1.6 records
- Display Total Hrs for each class of demand (from Table 1.1.7)

**User Workflow & Resultant Processing**

- Typical
  - Enter month, enter year
  - Place cursor on the % cell you want to change
  - Enter new data
  - System will calculate:
    - Hrs = % entered \* available hours for that line
    - Check = column sum of % for that line
    - Total Hrs (Table 1.1.7) = Row sum of hours for each capacity group
  - When all changes have been entered, click "DONE"
  - The system checks to insure all lines are 100% allocated. If not, hard error

### Figure 3F (Continued)

#### Transaction Summary – S&OP Adjust Line Allocation To Capacity Groups (Process 1.1.6)

##### User Workflow & Resultant Processing

- The system generates a table of LS, ME, CO all of the average values for table 1.1.7
  - LS Average =  $\Sigma$ All lines  
(line Hrs for CGD/Total Hrs for CGD) \* Line LS for CGD
  - ME Average =  $\Sigma$ All lines  
(line Hrs for CGD/Total Hrs for CGD) \* Line ME for CGD
  - CO Average =  $\Sigma$ All lines  
(line Hrs for CGD/Total Hrs for CGD) \* Line CO for CGD
- Save Table 1.1.7 value
- Exceptional
  - Point and click to the % cell to be changed
  - Change value in cell

##### Notes:

- The user may elect to enter data by row or by column, screen operation should allow both using standard navigation: <enter> moves down a cell, <tab> moves over a cell
- Screen should be horizontally and vertically scrollable

**Figure 3G**  
**Transaction Summary – S&OP Display Capacity Group Averages (Process 1.1.7)**

**Plan Capacity - S & OP Display Capacity Group Demand Averages**

my Logo

Professional Services Go to...

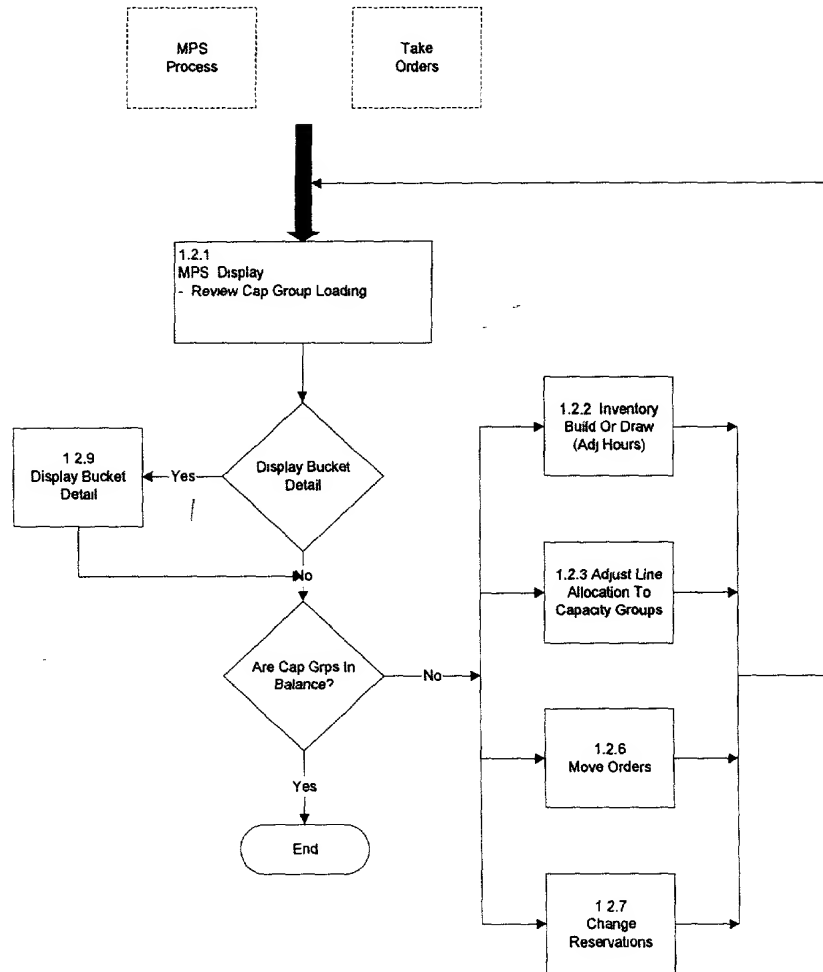
Month: May  
 Year: 2000

CONFIDENTIAL Screen No Plan 1.1.7

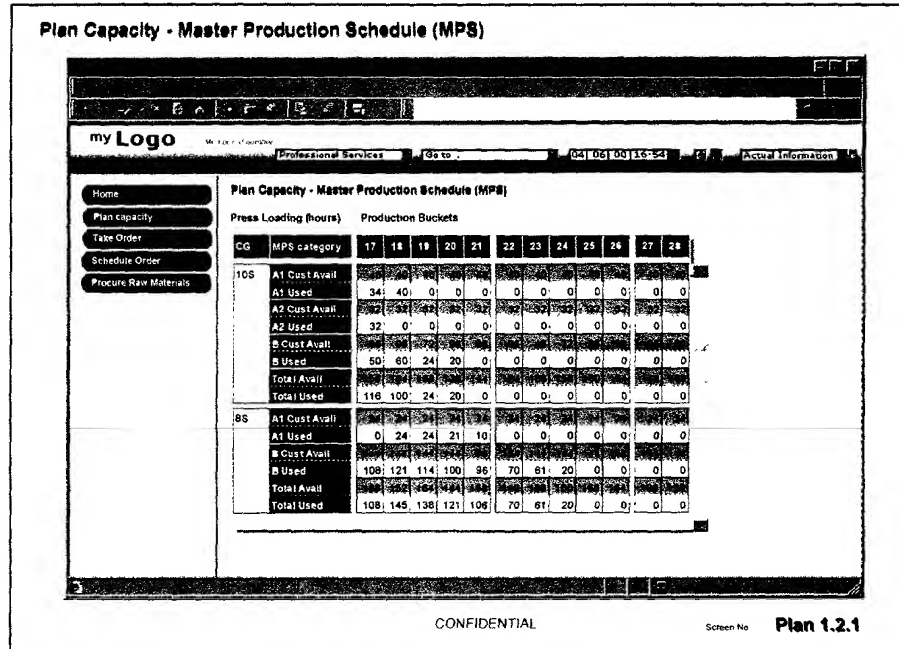
- |                                      |   |
|--------------------------------------|---|
| Initial Processing                   | <ul style="list-style-type: none"> <li>• Default month and year to current month and year</li> <li>• Lookup all records on Table 1.1.7 using converter_no from login and current month and year</li> </ul>              |
| User Workflow & Resultant Processing | <ul style="list-style-type: none"> <li>• Typical               <ul style="list-style-type: none"> <li>– Enter month, enter year</li> <li>– Lookup and display all records for the Month and Year</li> </ul> </li> </ul> |
| Notes:                               | <ul style="list-style-type: none"> <li>• Display Only</li> </ul>  |

Figure 4

MPS Process – Weekly Process (Process 1.2)



**Figure 4A**  
Transaction Summary – Plan Capacity – MPS Display (Process 1.2.1)



- Initial Processing
- Lookup all records on Table 1.2.1 using converter number from login
  - Display all records
- User Workflow & Resultant Processing
- Typical
    - User may click on Production Bucket # (at top of column, ie// 18) and control should transfer to transaction PLAN1.2.9, Display Bucket Detail.
- Notes:
- Display Only

**Figure 4B**  
**Transaction Summary – Plan Capacity – MPS Inventory Draw Or Build (Process 1.2.2)**

Plan Capacity - MPS Inventory Build Or Draw

myLogo

Professional Services

Go to...

04/06/00 16:54

Actual Information

Home

Plan Capacity

Take Order

Schedule Order

Procure Raw Materials

Plan Capacity - MPS Inventory Draw Or Build

| Bucket # |                     | Bucket # |                     | Bucket # |                     |
|----------|---------------------|----------|---------------------|----------|---------------------|
| 20       | Build Inv for Frito | 20       | Build Inv for Frito | 10       | Build Inv for Frito |
| -15      | Draw Inv for Nestle |          |                     |          |                     |

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Screen No Plan 1.2.2

**Initial Processing**

- Lookup all records on Table 1.2.2 using converter number from login
- Calculate “todays” bucket – see algorithm Bucket Calc
- Set display such that initial production bucket is “todays” bucket
- Display all records

**User Workflow & Resultant Processing**

- Typical
  - Use horizontal scrolling to get to the bucket to display
  - Enter an inventory build or draw (in hours for that bucket) for a specific capacity group . Move to comment field and add a comment on the build or draw.

**Notes:**

- None

**Figure 4C**  
**Transaction Summary – Plan Capacity – MPS Adjust Line**  
**Allocation to Capacity Group (Process 1.2.3)**

**Plan Capacity - MPS Line Allocation To Capacity Groups**

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**my Logo**    Version 1.0    Professional Services    Go to...    04/06/00 16:54    Actual Information

---

Home

Plan capacity

Take Order

Schedule Order

Procure Raw Materials

**Plan Capacity - MPS Line Allocation To Capacity Groups**

Year:

Bucket #:

|     |     |     |
|-----|-----|-----|
| 50% | 50% | 0%  |
| 50% | 0%  | 25% |
| 0%  | 25% | 0%  |
| 0%  | 0%  | 50% |
| 0%  | 25% | 25% |

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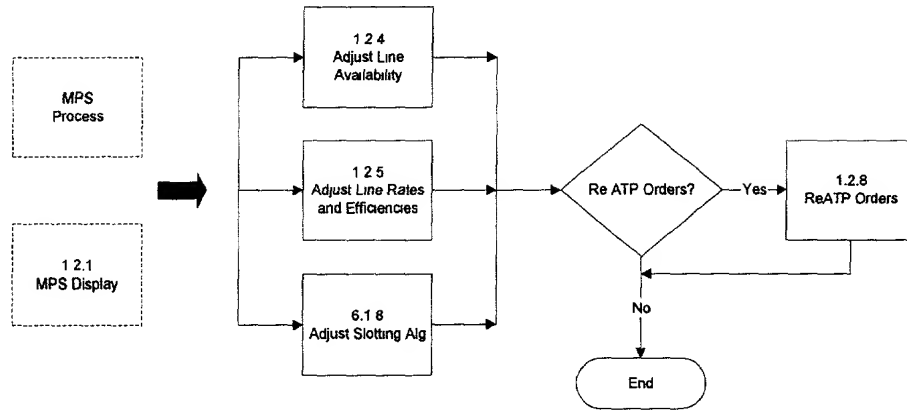
CONFIDENTIAL    Screen No    **Plan 1.2.3**

- Initial Processing**
- Lookup and display all records on Table 1.2.3 using converter-no, year, and bucket #.
- User Workflow & Resultant Processing**
- Typical
    - User will select a cell and change the percentage.
    - Prior to exiting the screen, all check sum's must be 100% or error.
- Notes:**
- None

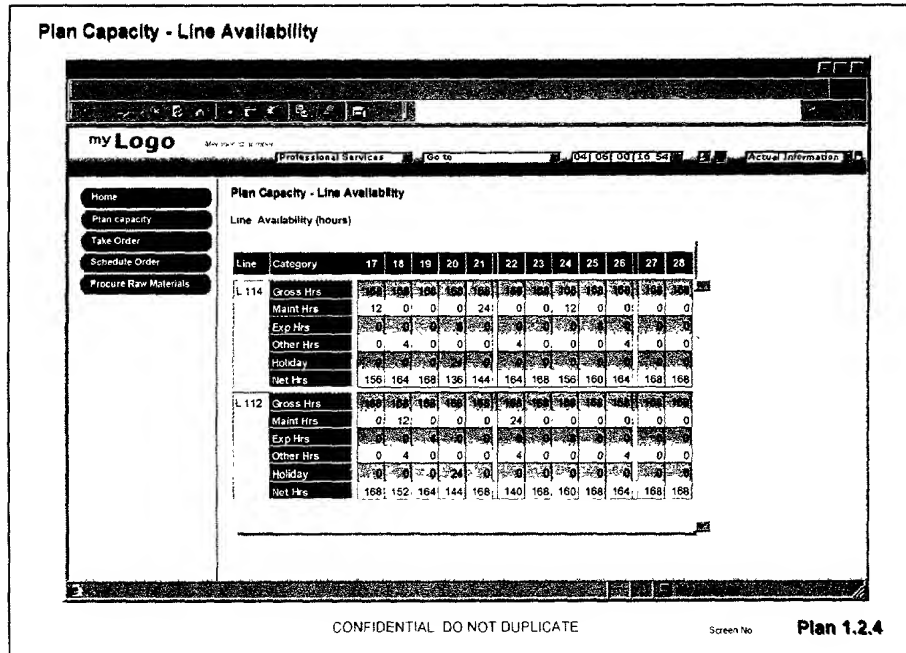


Figure 5

MPS Process – Supporting Processes (Process 1.2)



**Figure 5A**  
Transaction Summary – Plan Capacity – MPS Display (Process 1.2.4)



- |                                      |   |
|--------------------------------------|---|
| Initial Processing                   | <ul style="list-style-type: none"> <li>• Lookup all records on Table 1.2.4 using converter number from login</li> <li>• Display all records</li> </ul>  |
| User Workflow & Resultant Processing | <ul style="list-style-type: none"> <li>• Typical               <ul style="list-style-type: none"> <li>– User will click on a cell and change value</li> <li>– System should recalculate totals and update the screen</li> </ul> </li> </ul> |
| Notes:                               | <ul style="list-style-type: none"> <li>• None</li> </ul>  |

**Figure 5B**  
**Transaction Summary – Plan Capacity – Adjust Line Rates and Efficiencies (Process 1.2.5)**

Plan Capacity - MPS

myLogo

Professional Services

Go to

04 04 00 16504

Account Information

Home

Plan capacity

Take Order

Schedule Order

Procure Raw Materials

Plan Capacity - MPS, Rates and Efficiencies, Averages

Process Step

Printing

Bucket

17

Year

2000

| Class of Demand | Ave LS | Ave ME | Ave C/O |
|-----------------|--------|--------|---------|
| 10S             | 337.73 | 0.885  | 1.873   |
| 8S              | 342    | 0.887  | 1.500   |
| 8S/CS           | 250    | 0.837  | 2.250   |
| 6S/PS           | 375    | 0.900  | 1.250   |
| Pool            | 350    | 0.880  | 1.250   |

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Screen No

Plan 1.2.5

- Initial Processing
- Lookup and display all records on Table 1.2.5, using converter-no, process step, year, and bucket.
- User Workflow & Resultant Processing
- Typical
    - User may change process step, bucket, or year.
- Notes:
- Average data should be display only.

**Figure 5C**  
**Transaction Summary – Plan Capacity – Adjust Slotting Algorithm (Process 6.1.8)**

**Plan Capacity - Capacity Group Setup**

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**my Logo**      Version 1.0      Professional Services      Go to:      04/06/00 16:54      Actual Information

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**Plan Capacity - Capacity Group Setup**

Process Step: Printing  
Capacity Group Abbreviation: 10S  
Capacity Group Description: 10 Station

Capacity Groups

| Priority | Capacity Group | Cylinder Width | Max Stations | Extrusion Lam | Adhesive Lam | Max Process | Max Bounce | Cold Seal |
|----------|----------------|----------------|--------------|---------------|--------------|-------------|------------|-----------|
| 1        | Pool           | 1600           | 6            | N             | N            | 3           | 3          | N         |
| 2        | 8S             | 1600           | 6            | N             | N            | 2           | 3          | N         |
| 3        | 6SP3           | 1600           | 6            | Y             | Y            | 3           | 3          | Y         |
| 4        | 8S             | 1600           | 6            | N             | Y            | 2           | 3          | Y         |
| 5        | 10S            | 1700           | 10           | Y             | Y            | 3           | 3          | N         |

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Screen No **SU 6.1.8**

**Initial Processing**

- Lookup and display all data on the capacity group DB using converter-no, and process step.

**User Workflow & Resultant Processing**

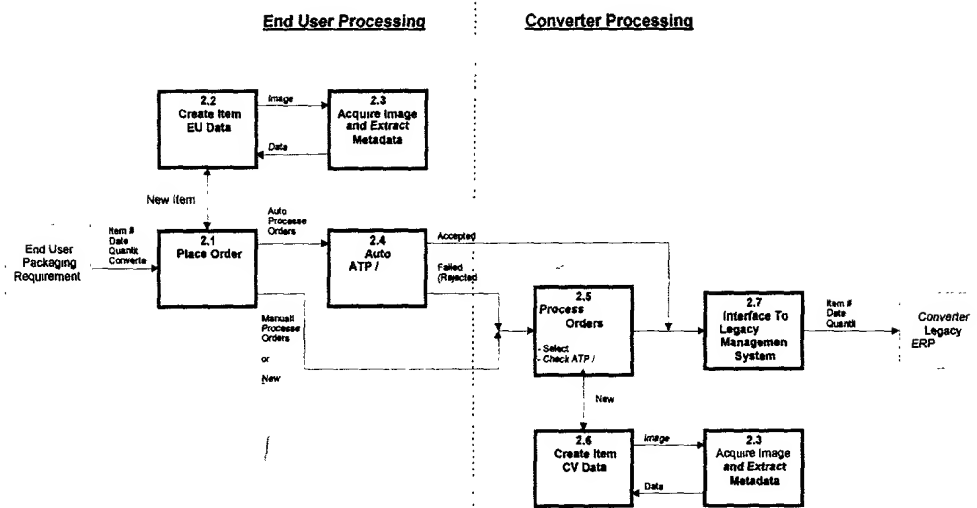
- Typical
  - User will add a new capacity group (row) to the matrix.
  - System should check that the priority numbers are unique.

**Notes:**

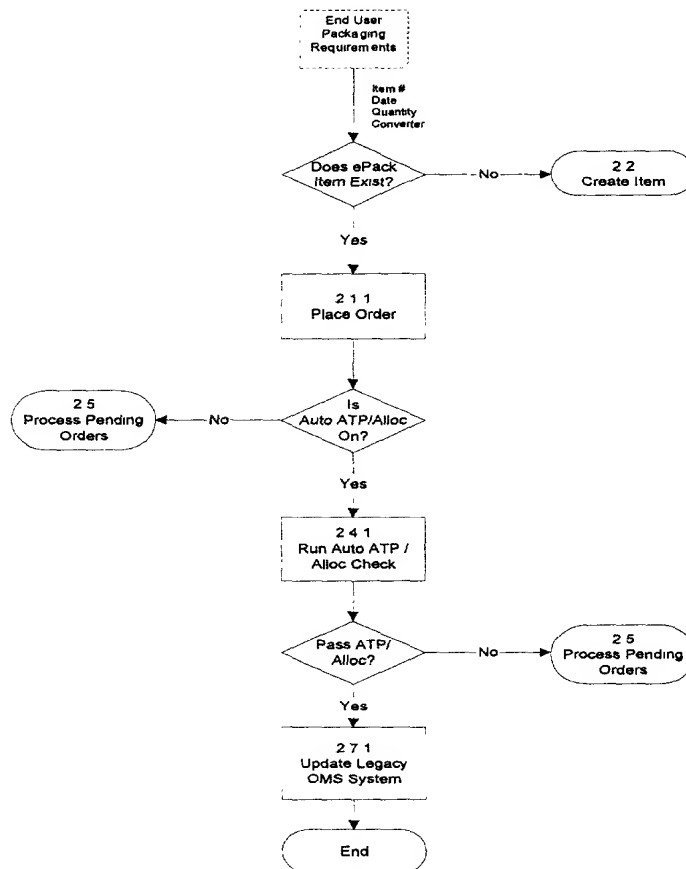
- None

Figure 6

Order Management Functional Overview



**Figure 7**  
**Place Order and Auto ATP / Allocation (Processes 2.1, 2.4, 2.7)**



- Place Order (Process 2.1.1). The end user places an order. This is done by specifying the item number, quantity required, date required and converter to produce a given order. If the item does not already exist, the end user can create it.
- Auto ATP / Allocation Check (Process 2.4.1). If the specified converter's automatic ATP/Allocation check is turned on then ATP/Allocation will be run automatically. If the order passes, it will be accepted and transmitted to the converter's Order Management System. Otherwise, the order is placed in a pending order queue.

**Figure 7A**  
Transaction Summary – Place/Change An Order (Process 2.1.1)

**Place Order - End User**

---

**my Logo**    Mod No. 11/00/00    [04] 00 00 16:54    Actual Information

---

|  |  |   |  |
|--|--|---|--|
| <a href="#">Home</a><br><a href="#">Plan capacity</a><br><a href="#">Take Order</a><br><a href="#">Schedule Order</a><br><a href="#">Procure Raw Materials</a> | <b>Place Order - End User</b>            |   | <b>Sold To Customer #</b><br>[58874123]  |
|  | PO No                                    | [16-2258]   | <b>Wise</b><br>192 rue de Clemency<br>B-6782 Salenghe<br>Belgium                               |
|  | Item No                                  | [167687-001]  | <b>Ship To Customer #</b><br>[111533]  |
|  | <b>Wise</b><br>6 Oz Regular Potato Chips |   | <b>Wise</b><br>Strada Per Pandi, 4<br>Zona Industriale<br>Via Polymer<br>72100 Brindisi, Italy |
|  | Date Req                                 | [04may00]   | <b>Target Converter #</b><br>[225839]  |
| Quantity   | [476,000]    [imps]                      | <b>MIPA</b><br>via Fermo, 26<br>61100 Pesaro (Italia) | <b>Auto Processing</b> [On]  |
| Quantity   | [63,467]    [M]                          |   |  |
| Quantity   | [2,587]    [Kg]                          |   |  |
| <b>Status</b>  |  |   |  |
| [Pending]  |  |   |  |

CONFIDENTIAL    Screen No    **OM 2.1.1**

- Initial Processing**    •    None
- User Workflow & Resultant Processing**    •    Typical
- Enter purchase order number from legacy Purchasing system
  - Enter Item No
  - Lookup on Item DB using Item #: item description, end user #, target converter #, yield, cutoff, width
  - Set sold to customer number to end user #
  - Lookup on converter DB using target converter #: converter name, address, and auto processing field
  - Lookup on end user DB using sold to #: customer name, customer address, default ship to customer number
  - Set ship to # to default ship to customer number
  - Lookup on end user DB using ship to #: customer name and address
  - Enter the date required
  - Enter quantity
  - Enter quantity unit of measure
  - Calculate alternative units of measure
    - Imps to Mass = ((cutoff \* width \* # imps) / (yield)) / uom1
    - Imps to Length = ((# impressions / # up) \* cutoff) / uom2
    - Mass to Imps = uom3 \* (mass \* Yield) / (cutoff \* width)
    - Mass to Length = uom4 \* (mass \* Yield) / (width \* # across)
    - Length to Imps = uom2 \* (Length / cutoff) \* # across
    - Length to Mass = (Length \* # across \* width) / Yield / uom4
- Note: uom# factors are needed because commercial unit of measure conventions in metric and english units of measure are inconsistent.

**Figure 7A (Continued)**  
**Transaction Summary – Place/Change An Order (Process 2.1.1)**

**User Workflow &  
Resultant Processing**

- Press Submit Order Key
- If AutoATP = "ON" Then
  - Slot order to capacity group (See Algorithms)
  - Calculate production bucket (See Algorithms)
  - Lookup on Capacity group DB using capacity group: average changeover time, average line speed, average material efficiency
  - Slot order to laminator (if applicable) (See Algorithms)
  - Lookup on Equipment DB using laminator line #: average changeover time, average line speed, average material efficiency
  - Calculate estimated quantity = quantity / (capacity group me \* laminator me \* standard slitter me)
  - Calculate estimated production hours

Press:

#Across = INTegeR(Max width Capacity Group / Image Width)

# Length = Imps Orders / #Across

Length = (# Length \* Cutoff) / (1000)

AdjLength = Length / Material Eff of Cap Group

Press Hrs = (Length / Average Line Speed Capacity Group) +

Average Change Over Time for CG

Laminator:

Laminator Hrs = (Length / Material Eff of Laminator / Average Line Speed Laminator) + Average Change Over Time for Laminator

Send Order No, Press Hrs, Lam Hrs, Item No, Press Bucket, Lam Bucket, Capacity Group to AutoATP Check 2.4.1.

- ELSE (AutoATP = "OFF")
- Change Order Status To "PendingConv"

End

• **Exceptional**

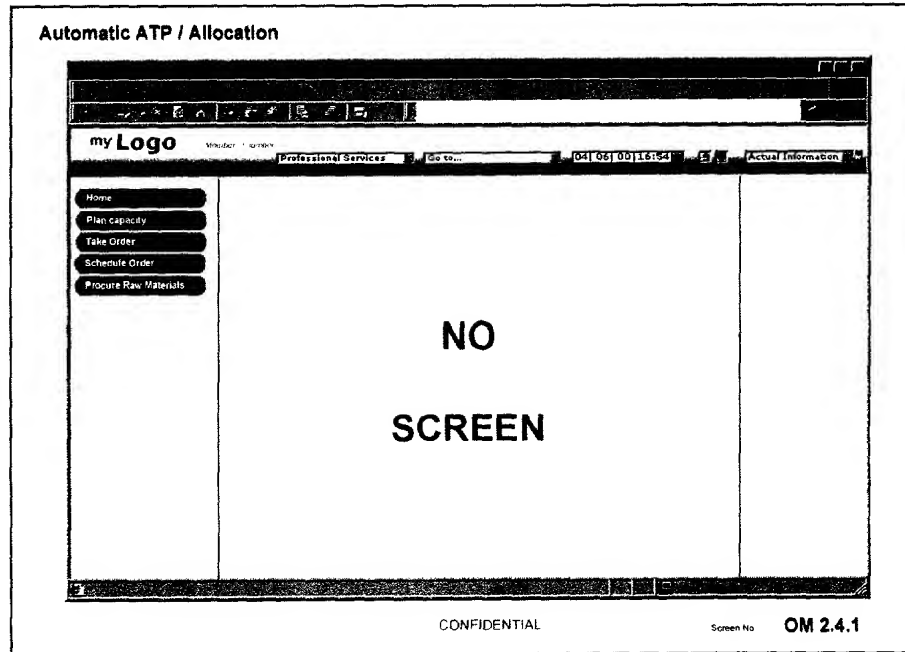
- Change Target converter number
- Lookup on converter DB using converter # and get converter name and address
- Change ship to customer number
- Lookup on customer DB using ship to # and get customer name and address
- Change ship to address
- Change and reATP order
  - Retrieve existing order, display current values, and allow user to reATP the order with or without changes to date and/or quantity.

**Notes:**

- There should be drop down buttons on the following fields so that the user can do a lookup: Item No, Sold To Customer #, Ship To Customer #, Target Converter, Quantity Unit of Measure



**Figure 7B**  
**Transaction Summary – Automatic ATP / Allocation (Process 2.4.1)**



**Initial Processing**

- Send:
  - Order number
  - Press bucket #
  - Laminator bucket #
  - Required press hours
  - Required laminator hours
  - End user number
  - Item number
- Return:
  - ATP Status
  - Allocation Status
  - Film Status
  - Cylinder Status

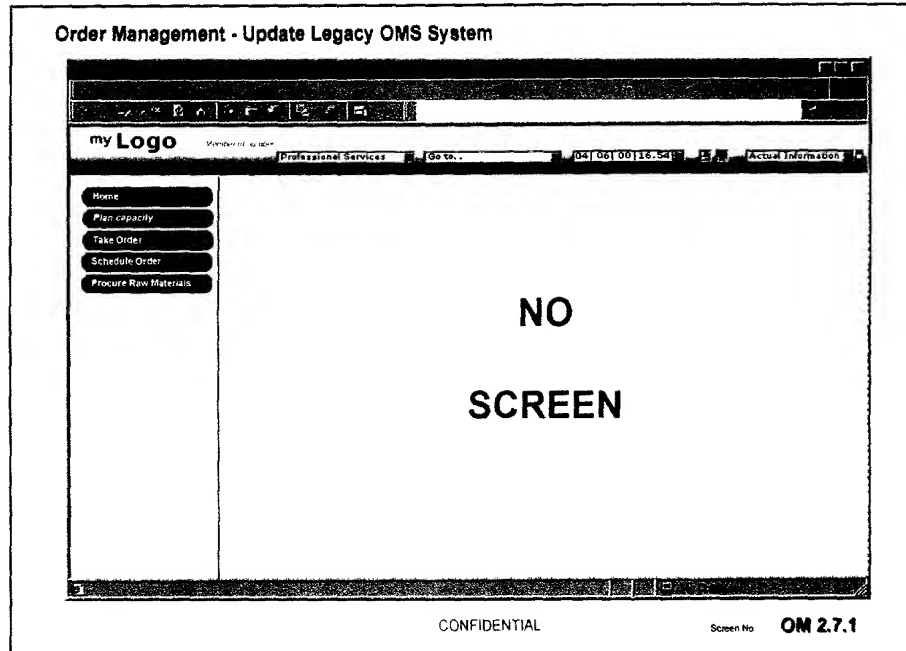
**User Workflow &  
Resultant Processing**

- None

**Notes:**

- See Alg AutoATP for detailed calculations

**Figure 7C**  
**Transaction Summary – Update Legacy OMS System (Process 2.7.1)**



**Initial Processing**

- Send:
  - CV Item #
  - EU Item #
  - End User #
  - End User PO #
  - Quantity requested
  - Quantity unit of measure
  - Date requested
- Return:
  - Order #

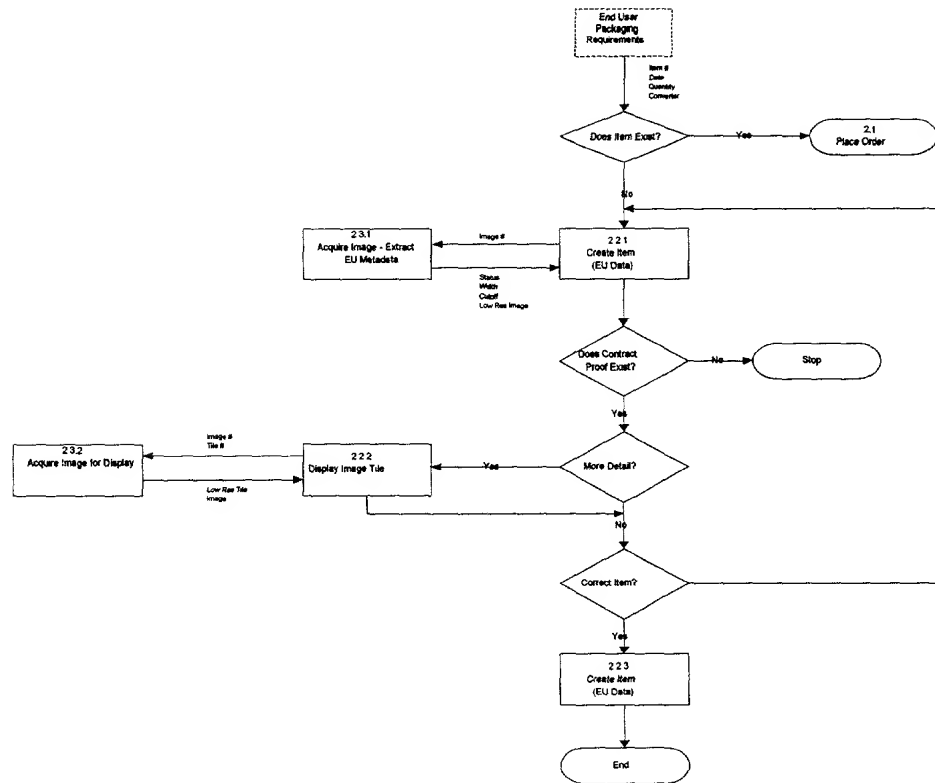
**User Workflow &  
Resultant Processing**

- None

**Notes:**

- None

**Figure 8**  
**IVC. Process Detail – Item Setup End User (EU), Acquire Image-Extract EU Metadata (Process 2.2, 2.3)**



- Create Item (Process 2.2.1). Create Item, Image Data. The end user creates an item in system. The user enters an item number and an image number. The system interfaces with the Image Acquisition and Metadata Extraction Module to retrieve image status, width, cutoff, and a low resolution image display.
- Acquire Image - Extract EU Metadata (Process 2.3.1). Acquire Image - Extract EU Metadata. The system requests a specific image from any suitable digital workflow. Once the image is retrieved, the system processes the image file to extract image status, width, cutoff, and a low resolution image display. If there is no approved contract proof in response to the system's request, the create item process is stopped.

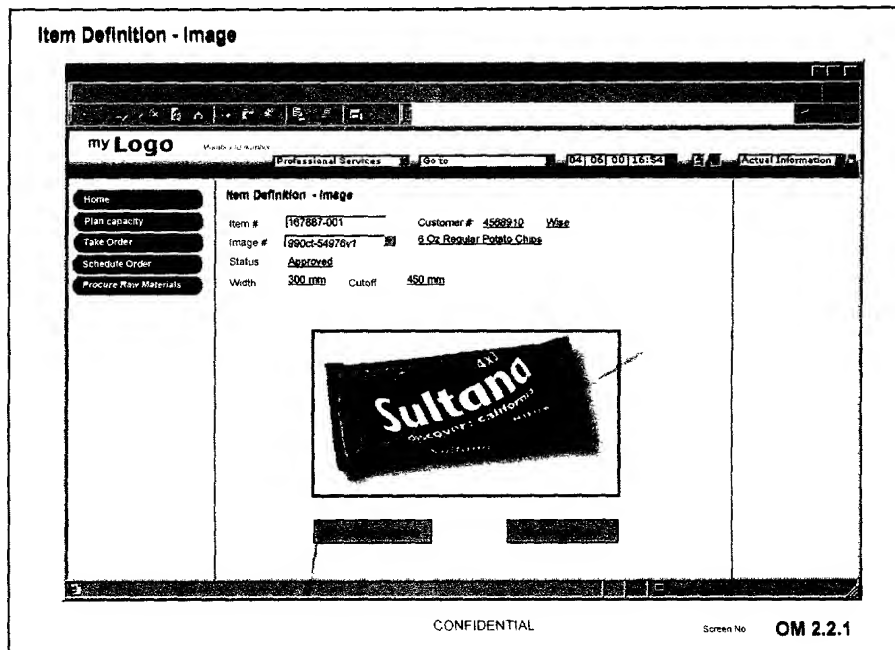
**Figure 8 (Continued)**

**IVC. Process Detail – Item Setup End User (EU), Acquire Image-Extract EU Metadata (Process 2.2, 2.3)**

- Display Image Tile (Process 2.2.2). The low resolution image display will be segmented into “tiles.” The user can click on a tile and the system will request and display a low resolution image of that tile.
- Acquire Image For Display (Process 2.3.2). Acquire Image For Display. The system makes a specific image and tile # request to the Image Acquisition and Display module. The module returns a low resolution tile image display. If this is not the correct image, the user will can jump back to Create Item (Process 2.2.1) and can enter a different image number.
- Create Item (Process 2.2.3). Create Item, Packaging Structure. The user can enter the package structure.

2025-03-25 10:00:00

**Figure 8A**  
**Transaction Summary – Item Definition, Image (Process 2.2.1)**

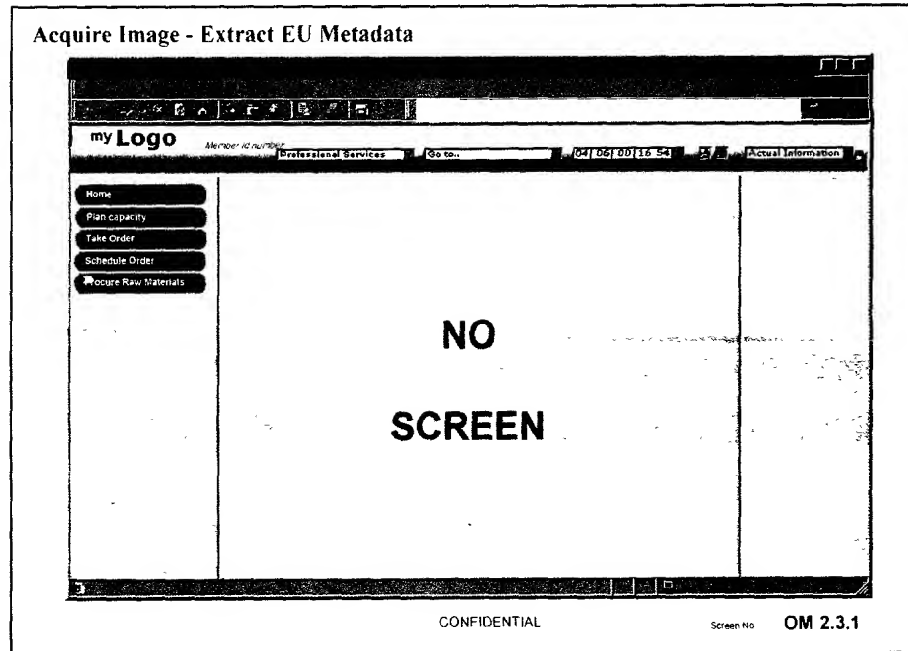


- |                                      |  |
|--------------------------------------|--|
| Initial Processing                   | <ul style="list-style-type: none"> <li>• Lookup all records on Table 2.2.1 using enduser_no from login</li> <li>• Default Customer to customer name from login</li> </ul>  |
| User Workflow & Resultant Processing | <ul style="list-style-type: none"> <li>• Typical               <ul style="list-style-type: none"> <li>– Enter Item #</li> <li>– Enter Image #</li> <li>– Interface with the Image Acquisition and Metadata extraction module. Send image number. Receive image status, width, cutoff, and a low resolution image for display.</li> <li>– User clicks on the “Set Up Pkg Structure” button and is transferred to transaction 2.2.3.</li> </ul> </li> <li>• Exceptional               <ul style="list-style-type: none"> <li>– User clicks on the “More Image Detail” button and is transferred to transaction 2.2.2.</li> </ul> </li> </ul> |
| Notes:                               | <ul style="list-style-type: none"> <li>• None</li> </ul>   |

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**Figure 8B**

**Transaction Summary – Acquire Image - Extract EU Metadata (Process 2.3.1)**



**Initial Processing**

- Send:
  - Image number
- Return:
  - Image Status
  - Image width
  - Image cutoff
  - Low Resolution Image Display file
- Calculations
  - None Required

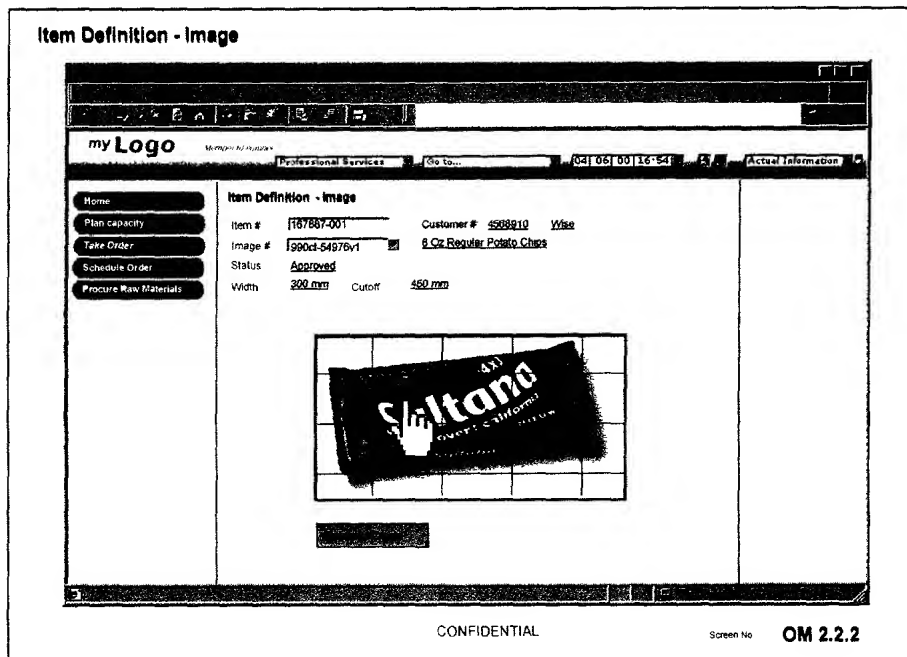
**User Workflow &  
Resultant Processing**

- None

**Notes:**

- None

**Figure 8C**  
**Transaction Summary – Item Definition, Display Image Tile (Process 2.2.2)**



- |                                      |  |
|--------------------------------------|--|
| Initial Processing                   | <ul style="list-style-type: none"> <li>• Display image with tile grid lines</li> </ul>   |
| User Workflow & Resultant Processing | <ul style="list-style-type: none"> <li>• Typical           <ul style="list-style-type: none"> <li>– User clicks on one of the “tiles”</li> <li>– The system requests the specified tile from the Image Acquisition and Display Module by sending the image number and the tile number. The module returns a low resolution, full screen image of the tile (Process 2.3.2).</li> <li>– User clicks on “Return to Create” button</li> </ul> </li> <li>• Exceptional</li> </ul> |
| Notes:                               | <ul style="list-style-type: none"> <li>• None</li> </ul>   |

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**Figure 8D**  
**Transaction Summary – Item Definition, Package Structure (Process 2.2.3)**

**Item Definition - Package Structure, End User**

myLogo

Professional Services

04/06/00 18:54

Actual Information

Home

Plan Capacity

Take Order

Schedule Order

Purchase Raw Materials

**Item Definition - Package Structure**

Item # 167887-001 Customer # 4508910 Yds

Image # 1000ct-54078v1 6 Oz Regular Potato Chips

**Package Structure**

| Layer     | General | Description | Supplier | Material |
|-----------|---------|-------------|----------|----------|
| Substrate |         |             |          |          |
| Print     |         |             |          |          |
| AdhLam    |         |             |          |          |
| Substrate |         |             |          |          |

AdhLam

ExtLam

Print

Substrate

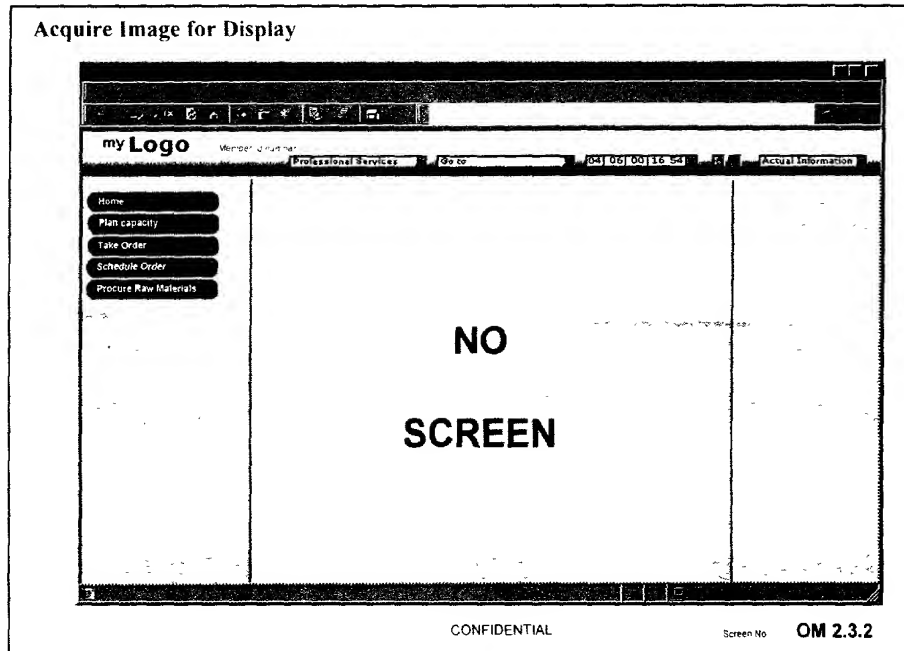
CONFIDENTIAL

Screen No OM 2.2.3

- Initial Processing**
- Lookup allowable items for layer on Table "Layers"
- User Workflow & Resultant Processing**
- Typical
    - Pick layer off list
    - Enter all other fields
  - Exceptional
    - Point and click to select individual cell
    - Change value in cell
- Notes:**
- The user may elect to enter data by row or by column, screen operation should allow both using standard navigation: <enter> moves down a cell, <tab> moves over a cell
  - Screen should be vertically scrollable

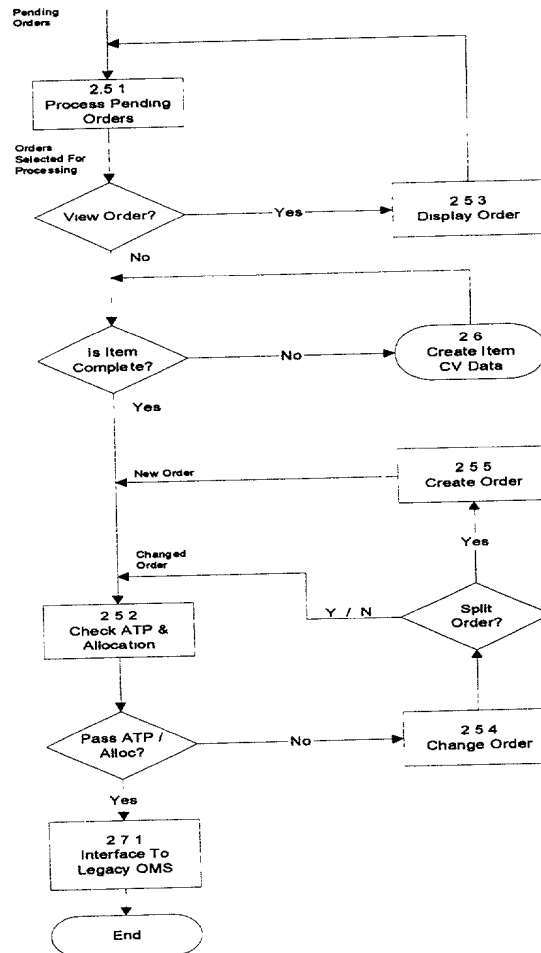


**Figure 8E**  
**Transaction Summary – Acquire Image for Display (Process 2.3.2)**



- |                                      |  |
|--------------------------------------|--|
| Initial Processing                   | <ul style="list-style-type: none"> <li>• Send: <ul style="list-style-type: none"> <li>– Image number</li> <li>– Tile number</li> </ul> </li> <li>• Return: <ul style="list-style-type: none"> <li>– Full Screen Low Resolution Image Display of tile</li> </ul> </li> <li>• Calculations <ul style="list-style-type: none"> <li>– None Required</li> </ul> </li> </ul> |
| User Workflow & Resultant Processing | <ul style="list-style-type: none"> <li>• None</li> </ul>   |
| Notes:                               | <ul style="list-style-type: none"> <li>• None</li> </ul>   |

**Figure 9**  
**Process Pending Orders (Processes 2.5, 2.7)**



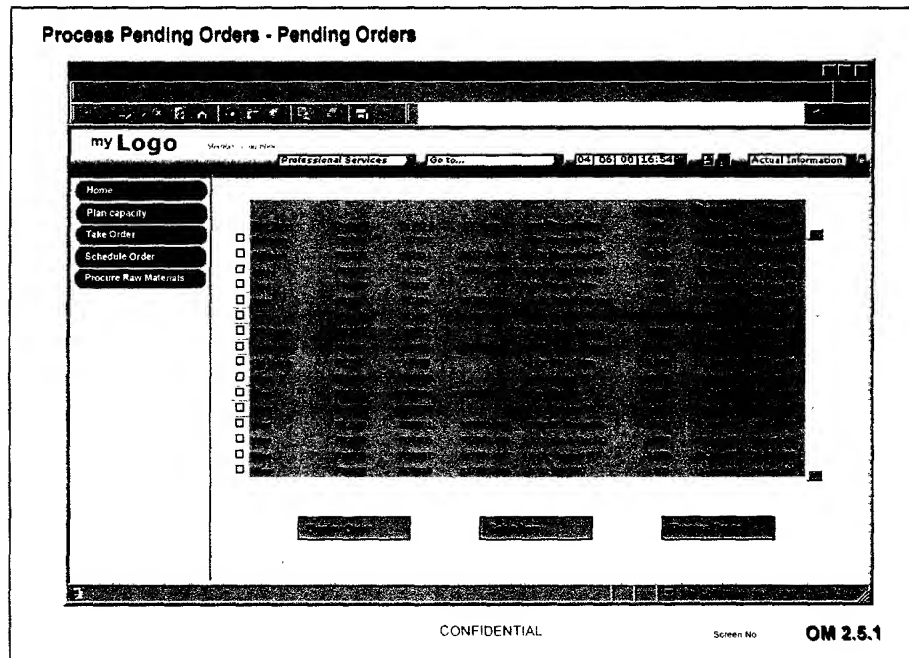
- Process Pending Orders (Process 2.5.1). The first step in processing orders is viewing the list of pending orders. The pending orders may be the result of failed automatic processing, or the result of disabled auto processing. The user may wish to select an order(s) and "View" the order(s) in detail. The next step is to determine if the item definition is complete. This can be determined by looking in column #4 of the Pending Orders que. If this column is blank, then the converter must fill in additional data to complete the item definition by going to Process 2.6.

**Figure 9 (Continued)**  
**Process Pending Orders (Processes 2.5, 2.7)**

- ATP Allocation Check (Process 2.5.2). Both ATP and allocation are checked. If either item fails to pass the check, the system will provide an explanation via a recommended change to the data such that it will pass. For example, if the original order were for 476,000 impressions on July 10<sup>th</sup>, a failure would trigger ePack to display what items could be produced and when (380,000 impressions on July 10<sup>th</sup> or 476,000 impressions on July 15<sup>th</sup>).
- Change / Create Order (Process 2.5.3). If ATP or allocation fails, the converter will have to change the quantity or request date on the order.
- Change / Create Order (Process 2.5.3). If there is a significant change to quantity or request date, the end user may require an additional order be entered to ensure they do not run out of material. The converter will enter the new order.
- Interface To Legacy OMS (Process 2.7). Once an order (s) passes ATP and allocation, it is accepted and passed to the Legacy OMS system.

2025-07-10 10:10:10

**Figure 9A**  
**Transaction Summary – Order Management, Process Pending Orders (Process 2.5.1)**



- |                                      |  |
|--------------------------------------|--|
| Initial Processing                   | <ul style="list-style-type: none"> <li>• Lookup on the “Orders” database, using converter number, all orders with a “Pending” status</li> </ul>  |
| User Workflow & Resultant Processing | <ul style="list-style-type: none"> <li>• Typical               <ul style="list-style-type: none"> <li>– The user will check off a group of orders</li> <li>– The user will click on the “Process Orders” button</li> <li>– List of checked orders and corresponding data will be sent to Transaction 2.5.2 (Check ATP/Allocation)</li> </ul> </li> <li>• Exception               <ul style="list-style-type: none"> <li>– The user will check off a group of orders</li> <li>– The user will click on the “Display Orders” button</li> <li>– List of checked orders and corresponding data will be sent to Transaction 2.5.3 (Display Order)</li> </ul> </li> <li>• Exception               <ul style="list-style-type: none"> <li>– The user will check off a group of orders that do not have CV Item numbers listed in column #4</li> <li>– The user will click on the “Setup Item” button</li> <li>– List of checked orders and corresponding data will be sent to Transaction 2.6.1 (Create Item, CV data)</li> </ul> </li> </ul> |
| Notes:                               | <ul style="list-style-type: none"> <li>• No data can be changed on this screen</li> <li>• The user may only check off orders and push the setup item or process orders buttons</li> </ul>  |

**Figure 9B**

**Transaction Summary – Order Management, ATP / Allocation Check (Process 2.5.2)**

**Take Order - Check ATP / Alloc**

my Logo    Professional Services    Go to:    04/06/00 16:54    Actual Information

Home  
Plan capacity  
Take Order  
Schedule Order  
Procure Raw Materials

**Take Order - Check ATP / Alloc**

Order No: P32514

Order No: P32514    Customer: Wise  
Item No: 107887-001    Description: 18 Oz Regular Potato Chips

Original Request    System Response

Date Requested: 04may00    No    No    No    No  
Quantity Requested: 476,000 Imps    Cylinders    Film    ATP    Alloc

|                    | Best Proposal<br>Full Quantity | Alternate Proposal<br>Partial Quantity |
|--------------------|--------------------------------|--|
| Date Requested     | 10may00                        | 04may00                                |
| Quantity Requested | 476,000 Imps                   | 394,000 Imps                           |
| Impact             | + 6 days                       | 92.8 %                                 |
| Pricing            | \$3.00 / Kg                    | \$3.60 / Kg                            |

CONFIDENTIAL    Screen No    OM 2.5.2

**Initial Processing**

- Lookup on order DB using order #: date requested, quantity requested, uom requested, enduser number
- Send order data to ATP/Allocation check
- Display ATP / Allocation results

**User Workflow & Resultant Processing**

- Typical
  - User will look at the results of ATP / Allocation, if cylinder or film is red, the user will “click” on the film or cylinder button to get more detail. Display Film Detail – Sch 3.1.4, Display Cylinder Detail – Sch 3.1.3
  - If ATP is “NO” find alternate proposals, see algorithms ATP / Allocation Check.
  - User will look at the “proposed” solutions and accept one of them.
- Exception
  - If any one of the indicators is No (red) the user will click on one of the “display detail” buttons and goto the detail screens.  
Display Film Detail – Sch 3.1.4  
Display Cylinder Detail – Sch 3.1.3  
Display ATP Detail –  
Display Alloc Detail -

**Notes:**

- This screen is only displayed if the order fails for 1 or more of the checks: cylinders, film, ATP, allocation.

**Figure 9C**  
**Transaction Summary – Order Management, Display Order (Process 2.5.3)**

my Logo

Professional Services

04/06/00 16:54

Actual Information

Home

Plan Capacity

Take Order

Schedule Order

Procure Raw Materials

Display Order

CV

Order No [OR516-2345]

EU

Order No

Converter Date

Order No OR516-2345

Item No 167887-001

Date Req 04may00

Quantity 476,000

Quantity 2,557 Kg 63,467 M

Imps

End User Date

Order No P32145

Item No 99-1632-conv1

Customer Wise

6 Oz Regular Potato Chips

|    | Color | Color # | Ink Sys | Cylinder # | Print | Grav |
|----|-------|---------|---------|------------|-------|------|
| 1  |       | 2707    | PA      | Y2400005   |       |      |
| 2  |       | 340     | PA      | Y2400006   |       |      |
| 3  |       | 405     | PA      | Y2400123   |       |      |
| 4  |       | 470     | PA      | Y2400456   |       |      |
| 5  |       | 220     | PA      | Y2400114   |       |      |
| 6  |       | 1488    | PA      | Y2400398   |       |      |
| 7  |       | 3248    | PA      | Y2400299   |       |      |
| 8  |       |         |         |            |       |      |
| 9  |       |         |         |            |       |      |
| 10 |       |         |         |            |       |      |

Process

L3

Bounce

L1

Cylinder Width

1180 mm

CONFIDENTIAL DO NOT DUPLICATE

Screen No OM 2.5.3

**Initial Processing**

- Lookup on Order DB using order #: all order data
- Display order

**User Workflow & Resultant Processing**

- Typical
  - User will look at order details
- Exception
  - User may click on buttons to look at package structure or bill of material or image details

**Notes:**

- This is a read only screen

**Figure 9D**  
**Transaction Summary – Order Management, Change Order (Process 2.5.4)**

Change Order

my Logo

Home

Plan capacity

Take Order

Schedule Order

Procure Raw Materials

CV

Order No

OR516-2345

EU

Order No

Converter Data

Conv #

225889

Order No

OR516-2345

Item No

167887-001

Date Req

04may00

Quantity

1476,000

Imps

63,407 M

End User Data

Order No

P32145

Item No

69-1652-conv1

Customer

Wise

8 Oz Regular Potato Chips

|    | Color | Color # | Ink Sys | Cylinder # |
|----|-------|---------|---------|------------|
| 1  |       | 2707    | IPA     | Y2400005   |
| 2  |       | 340     | IPA     | Y2400006   |
| 3  |       | 405     | IPA     | Y2400123   |
| 4  |       | 470     | IPA     | Y2400456   |
| 5  |       | 1220    | IPA     | Y2400114   |
| 6  |       | 11488   | IPA     | Y2400396   |
| 7  |       | 3245    | IPA     | Y2400299   |
| 8  |       |         |         |            |
| 9  |       |         |         |            |
| 10 |       |         |         |            |

Print

Grav

Process

L3

Bounce

L1

Cylinder Width

1180

mm

CONFIDENTIAL DO NOT DUPLICATE

Screen No

OM 2.5.4

**Initial Processing**

- Lookup on Order DB using order #: all order data
- Display order

**User Workflow & Resultant Processing**

- Typical
  - User will change order quantity or request date
- Exception
  -

**Notes:**

- None

**Figure 9E**  
**Transaction Summary – Order Management, Create Order (Process 2.5.5)**

Create Order

my Logo

Professional Services

Go to

041 061 00116 54

Actual Information

Home

Plan capacity

Take Order

Schedule Order

Procure Raw Materials

Create Order

CV

Order No [OR516-2772] Copy From Order No [OR516-2345]

Converter Data

Order No [OR516-2772]

Item No [167881-001]

Date Req [30may00]

Quantity [238,000] [mps]

Quantity [1,279 Kg] [31,733 M]

End User Data

Order No [P32145]

Item No [99-1632-conv1]

Customer [Wise]

[6 Oz Regular Potato Chips]

|    | Color | Color # | Ink Sys | Cylinder # |
|----|-------|---------|---------|------------|
| 1  |       | 2707    | IPA     | Y2400005   |
| 2  |       | 340     | IPA     | Y2400006   |
| 3  |       | 405     | IPA     | Y2400123   |
| 4  |       | 470     | IPA     | Y2400456   |
| 5  |       | 220     | IPA     | Y2400114   |
| 6  |       | 11489   | IPA     | Y2400398   |
| 7  |       | 13248   | IPA     | Y2400299   |
| 8  |       |         |         |            |
| 9  |       |         |         |            |
| 10 |       |         |         |            |

Print [Gray]

Process [LS]

Bounce [LT]

Cylinder Width [1180] mm

CONFIDENTIAL DO NOT DUPLICATE

Screen No OM 2.5.5

**Initial Processing**

- Lookup on Order DB using order #: all order data
- Display order

**User Workflow & Resultant Processing**

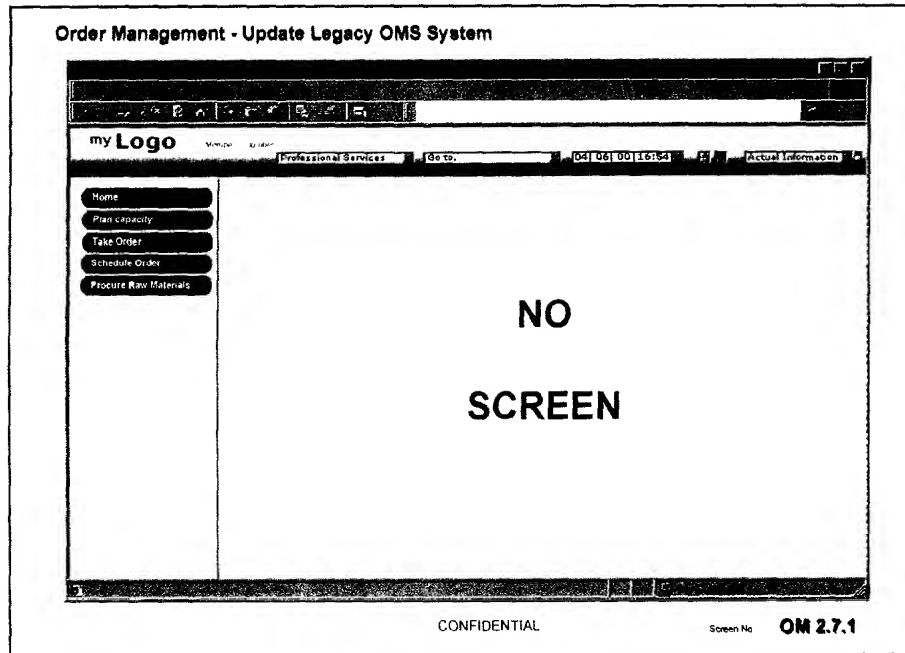
- Typical
  - User will fill in a new order number and an order number to copy from
  - User will push copy button
  - System will copy order and display copy on screen
  - User will change date requested and quantity
- Exception

**Notes:**

None



**Figure 9F**  
**Transaction Summary – Update Legacy OMS System (Process 2.7.1)**



**Initial Processing**

- Send:
  - CV Item #
  - EU Item #
  - End User #
  - End User PO #
  - Quantity requested
  - Quantity unit of measure
  - Date requested
- Return:
  - Order #

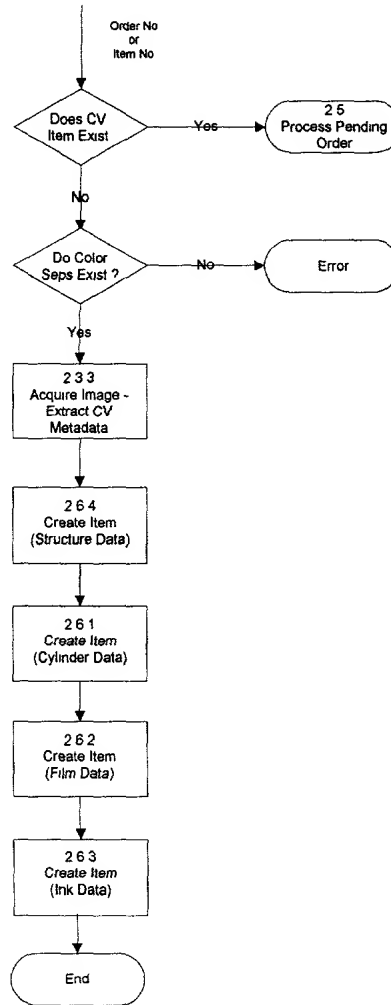
**User Workflow &  
Resultant Processing**

- None

**Notes:**

- None

**Figure 10**  
**Item Setup Converter (CV), Acquire Image and Extract Metadata**  
**(Processes 2.3, 2.6)**

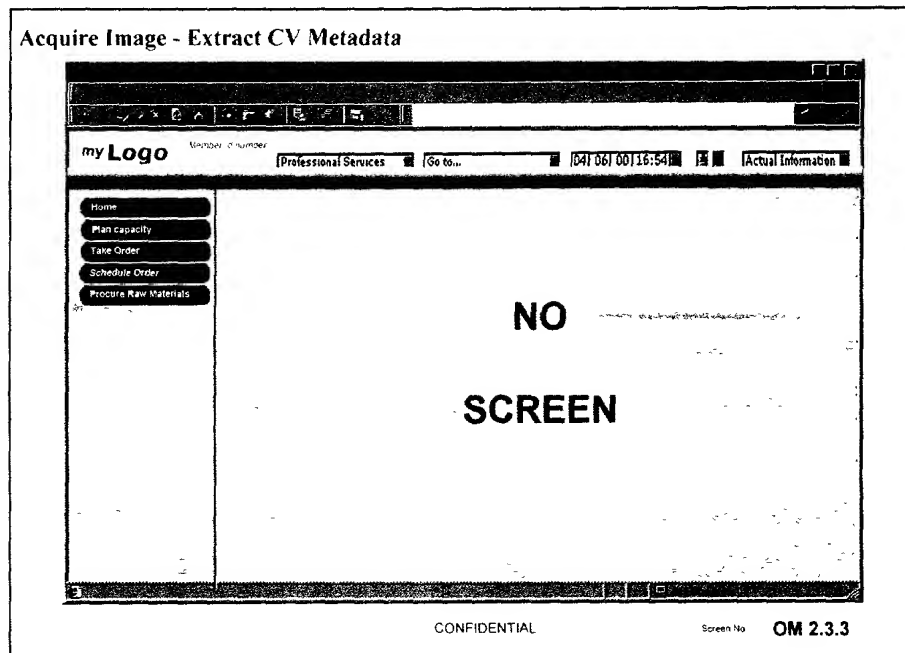


- Acquire Image - Extract CV Metadata (Process 2.3.3). Get Item # from Order DB using order #. Get Image # from Item DB using Item #. Interface with the Image Acquisition and Metadata Extraction Module using Image # and get all converting data.
- Create Item (Process 2.6.4). The converter adds structure data to the item. Some of the data elements for this transaction have already been entered by the end user.

**(Processes 2.3, 2.6)**

- Create Item (Process 2.6.1). The converter adds cylinder data to the item.
- Create Item (Process 2.6.2). The converter adds film data to the item bill of material.
- Create Item (Process 2.6.3). The converter adds ink data to the item bill of material.

**Figure 10A**  
**Transaction Summary – Acquire Image - Extract CV Metadata (Process 2.3.3)**



**Initial Processing**

- Send:
  - Image number
- Return:
  - Image description
  - Customer number
  - Customer name
  - # Across
  - # Around
  - Bounce level of difficulty
  - Color # for each cylinder
  - % ink coverage for each cylinder (color)
- Calculations
  - None Required

**User Workflow &  
Resultant Processing**

- None

**Notes:**

- None

20030707 09:26:50

**Figure 10B**  
**Transaction Summary – Create Item (Structure Data) (Process 2.6.4)**

**Item Definition - Package Structure, Converter Data**

---

**my Logo**

Home

Plan capacity

Take Order

Schedule Order

Procure Raw Materials

Item Definition - Package Structure

Item # 107687-001 Customer # 4509210 Wisc

Image # 990d-54976v1 8 Oz Regular Potato Chips

Package Structure

| Layer     | Routing | General Description | Supplier | Material | Cost Wt. | Cost Units |
|-----------|---------|---------------------|----------|----------|----------|------------|
| Substrate | 103     |                     |          |          |          |            |
| Print     | 103     |                     |          |          |          |            |
| AdhLam    | 202     |                     |          |          | 2.3      | g/sq M     |
| Substrate | 202     |                     |          |          |          |            |

Lamination Type ☒ Out of Line ☐ Inside ☐ Outside

Print 120 Coex

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Screen No **OM 2.6.4**

- |                                      |  |
|--------------------------------------|--|
| Initial Processing                   | <ul style="list-style-type: none"> <li>Lookup and display data elements from Table 2.2.3(Item Definition, Package Structure) using item_no</li> </ul>  |
| User Workflow & Resultant Processing | <p>Typical</p> <ul style="list-style-type: none"> <li>Enter routing</li> <li>Enter coating weight (if applicable)</li> <li>Enter coating units (if applicable)</li> <li>Enter Print film and side</li> </ul> |
| Notes:                               | <ul style="list-style-type: none"> <li>None</li> </ul>   |

**Figure 10C**  
**Transaction Summary – Create Item (Cylinder Data) (Process 2.6.1)**

**Item Definition - Enter / Change Item**

---

**my Logo** Professional Services [Go to...] 04/06/00 16:54 Actual Information

---

**Item Definition - Enter / Change Item**

Item # 167687-001 Item No 167687-001 Customer Item No 12345-1000

Customer Wise

Description 5 Oz Original Potato Chips Cylinder Width

Image # 890ct-54978v1

Width 380 mm # Across 3 1140 mm 1180 mm

Cutoff 400 mm # Around 1 400 mm

|    | Color | Color # | Ink Sys | Cylinder # | Converter Data   |
|----|-------|---------|---------|------------|--|
| 1  |       | 2707    | IPA     | Y2400005   | Print <input type="checkbox"/> Grav <input type="checkbox"/> |
| 2  |       | 1340    | IPA     | Y2400006   | Process <input type="checkbox"/> L3 <input type="checkbox"/> |
| 3  |       | 405     | IPA     | Y2400123   | Bounce <input type="checkbox"/> L1 <input type="checkbox"/>  |
| 4  |       | 470     | IPA     | Y2400456   |  |
| 5  |       | 220     | IPA     | Y2400114   |  |
| 6  |       | 11489   | IPA     | Y2400398   |  |
| 7  |       | 13246   | IPA     | Y2400299   |  |
| 8  |       |         |         |            |  |
| 9  |       |         |         |            |  |
| 10 |       |         |         |            |  |

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Screen No **OM 2.6.1**

**Initial Processing**

- Calculate width across = # across \* width
- Calculate width around = # around \* cutoff

**User Workflow & Resultant Processing**

**Typical**

- Enter ink system for each cylinder
- Enter cylinder # for each cylinder
- On first cylinder, lookup cylinder width on the cylinderDB using converter-no and cylinder number.
- Fill in cylinder width field
- For all subsequent cylinders, lookup cylinder width on the cylinderDB using convert-no and cylinder number and check it against the cylinder width field. If there IS NOT a match, error
- Enter Print
- Enter process level of difficulty
- Click on Package Structure button

**Notes:**

- None

**Figure 10D**  
Transaction Summary – Create Item (Film Data) (Process 2.6.2)

**Item Definition - Bill Of Materials**

---

myLogo    Professional Services    Go to    04 | 05 | 06 | 16-54    Actual Information

---

None  
Plan capacity  
Take Order  
Schedule Order  
Procure Raw Materials

**Item Definition - Bill of Materials**

Item # 107887-001    Item No 107887-001    Customer Item No 12345-1000

Customer /Wise

Description 16 OZ Regular Potato Chips

Image # 1890c-54676v1

Bill Of Materials    Basis 500,000    IMPS

|             | Material # | Description | Material | Width | Gauge | Qty Req (Kg) |
|-------------|------------|-------------|----------|-------|-------|--------------|
| Substrate 1 | F-20C-1145 | 20 Coex     |          | 1145  | 20    | 1521         |
| Substrate 2 | F-18M-1140 | 18 Mel      | 18NM488  | 1140  | 18    | 1371         |
| Substrate 3 |            |             |          |       |       |              |

|             | Material # | Description | Material | Coating Weight | Coating Units | Qty Req (Kg) |
|-------------|------------|-------------|----------|----------------|---------------|--------------|
| Top Coat    |            |             |          |                |               |              |
| Lam 1/2     | A-1234-Sun | ADH         | PU       | 2.3            | g/sq M        | 192          |
| Lam 2/3     |            |             |          |                |               |              |
| Bottom Coat |            |             |          |                |               |              |

CONFIDENTIAL    Screen No    **OM 2.6.2**

Initial Processing    •    None

User Workflow & Resultant Processing    Typical

- Enter basis quantity
- Enter basis unit of measure
- If basis unit of measure is not impressions, calculate basis impressions (required for ink calculations)  

$$\text{Kg to Imps} = \text{Kg} * \text{Yield} / (1000^2) / \text{cutoff mm} / \text{width mm}$$

$$\text{Sqm to Imps} = \text{Sqm} / \text{cutoff mm} / \text{width mm} / 1000^2$$

- For all materials
  - Enter material number
  - Lookup on Material DB using material #: material description
  - Enter material, width, gauge, quantity required to produce basis quantity
- For all coatings
  - Enter material number
  - Lookup on Material DB using material #: material description
  - Enter material, coating weight, coating units, quantity required to produce basis quantity
- Click on Ink Bill of Materials button

Notes:    •    None

**Figure 10E**  
**Transaction Summary – Create Item (Ink Data) (Process 2.6.3)**

**Item Definition - Ink Bill Of Materials**

---

myLogo
Professional Services
Go to...
04/06/00 16:54
Actual Information

Home
Plan capacity
Take Order
Schedule Order
Procure Raw Materials

**Item Definition - Bill of Materials**  
Item:  Item No: 107887-001 Customer Item No: 12345-1000  
Item #: 107887-001  
Customer: Wise  
Description: 8 Oz Regular Potato Chips  
Image #: 99Oct54976v1

| Color | Color # | Material # | Qty Wght         | %     | %      | Quantity |
|-------|---------|------------|------------------|-------|--------|----------|
|       |         |            | g/M <sup>2</sup> | Cover | Solids | Kg       |
|       | 2707    | 11234-sum  | 1.16             | 30%   | 45%    | 11.90    |
|       | 340     | 13245-Zen  | 0.95             | 45%   | 55%    | 17.90    |
|       | 405     | 1222-mor   | 0.85             | 50%   | 65%    | 21.00    |
|       | 470     | 1444-ssb   | 1                | 10%   | 50%    | 3.80     |
|       | 220     | 1333-l     | 1.05             | 15%   | 45%    | 5.39     |
|       | 1489    | 11111-unb  | 0.75             | 40%   | 49%    | 11.17    |
|       | 3248    | 18878-ik   | 0.9              | 5%    | 57%    | 1.95     |

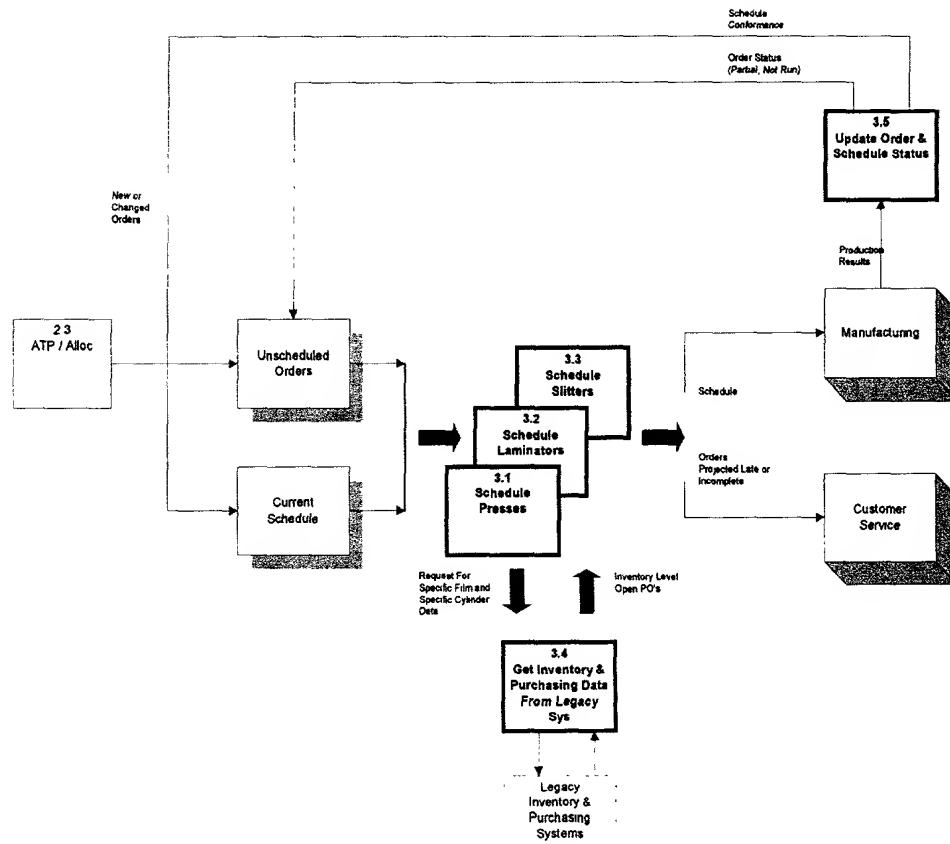
CONFIDENTIAL Screen No OM 2.6.3

- Initial Processing      • None
- User Workflow & Resultant Processing      • Typical
- For all materials
    - Enter material number
    - Enter coating weight
    - Enter % solids
  - Calculate Quantity = (BasisImpressions \* cutoff \* width / 1000/1000) \* coating weight \* % coverage \* % solids/1000
- Notes:      • None

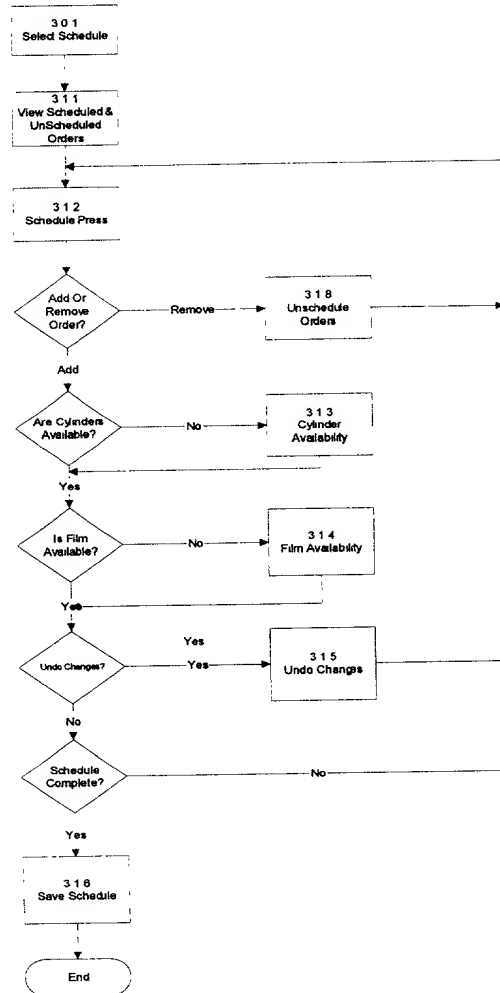


**Figure 11**

**Schedule Orders Functional Overview**



**Figure 11A**  
**Schedule Press (Process 3.1)**



- Select a Schedule (Process 3.0.1). Gives the user the ability to select the schedule they would like to work on. A user may have several "versions" of a schedule.
- View Scheduled & Unscheduled Orders (Process 3.1.1). Gives the user split screen capability (of the schedule they have selected) to view a line schedule on one side and a specified group of unscheduled orders on the other side of the screen.

**Figure 11A (Continued)**  
**Schedule Press (Process 3.1)**

- Schedule Press (Process 3.1.2). Gives the user the ability to schedule a press by selecting the job to schedule and dragging it onto the schedule in the desired position. The schedule is automatically adjusted. Scheduling statistics and job indicator lights are provided to help the user assess the impact of the change.
- Cylinder Availability (Process 3.1.3). When a job is scheduled there is an instantaneous check on available print cylinders. If any of the cylinders are not going to be ready then this transaction will show the user the status and projected complete dates on the cylinders.
- Film Availability (Process 3.1.4). When a job is scheduled there is an instantaneous check on film availability. If film is not going to be ready then this transaction will show the user a view of film inventory. The user can do a query on film sizes that are close to the desired size and may elect to "use" some of film for this job.

**Figure 11B**  
Transaction Summary – Select Schedule (Process 3.0.1)

**Schedule Order - Schedule Versions**

myLogo

Professional Services | Go to | 04 | 05 | 00 | 16:54 | Actual Information

Home  
Plan Capacity  
Take Order  
Schedule Order  
Procure Raw Materials

**Schedule Versions**

Process Step: Printing

| Schedule Version | Date      | Comment                           |
|------------------|-----------|-----------------------------------|
| A                | 8/15/200  | Active Schedule                   |
| V1               | 8/15/2000 | Extra Jayes Orders                |
| V2               | 8/15/2000 | Extra Jayes Orders + Volume Split |
| V3               | 8/15/2000 | No Extra Orders                   |
| V4               |           |                                   |
| V5               |           |                                   |

Get Schedule | Delete Schedule | Update Schedule | Schedule New Version

CONFIDENTIAL DO NOT DUPLICATE

Screen No **SCH 3.0.1**

- Initial Processing**
- Default process step to printing
  - Lookup and display existing schedule version data on the schedule-version db using converter-no and process step

- User Workflow & Resultant Processing**
- Typical
    - Change process step
    - Lookup and display existing schedule version data on the schedule-version db using converter-no and process step
    - Click and highlight desired version
    - Click on the Get Schedule button

*To build version PVX (Print version X) scheduled orders for line L for the next screen*

- Join Order DB and ScheduleDB (only records where schedule DB records exist)
- Select all orders with printstatus (OrderDB) = "unscheduled"
- Select all orders with schedule line (ScheduleDB) = "L" (default to lowest line number to build first tab on next screen)
- Select all orders with version (ScheduleDB) = "X"
- Sort orders on sequence #
- Get PVX start date and time from the schedule-timeDB using process-step = "Print", Version = "X", and Line-no = "L"
- Starting with first order (in sorted sequence) and continuing through the list, calculate start time, run time, and changeover time
- Build "Schedule PVX" pane for the default line, this will be the first display pane on the next screen.
- Build the other scheduled line panes in the background.

**Figure 11B (Continued)**  
**Transaction Summary – Select Schedule (Process 3.0.1)**

|   |  |
|---|--|
| User Workflow &<br>Resultant Processing | <p>To build version PVX (Print version X) unscheduled orders for the next screen</p> <ul style="list-style-type: none"> <li>– Join order DB and schedule DB (using all order records)</li> <li>– Select all orders with Print-Status = "Unscheduled"</li> <li>– Select all orders with Version NOT= "X" (these should be all of the unscheduled orders for version X)</li> <li>– Sort the unscheduled orders based on capacity group, on customer on item description.</li> <li>– Default capacity group to the first alphabetical group and select those orders. Build the unscheduled PVX pane for that capacity group. This will be starting display pane for the unscheduled orders on the next screen.</li> <li>– Build the other unscheduled capacity group panes in the background.</li> </ul> <p>• Exceptional</p> <p>Delete schedule button – The user highlights a schedule and presses the delete schedule button. Note: You are not allowed to delete the active schedule. If you want to get rid of the active schedule, you must pull it up (get schedule) and unschedule the orders.</p> <ul style="list-style-type: none"> <li>– Get the ScheduleDB and get all of the records with schedule version = "X" (the version to delete).</li> <li>– Delete these records</li> </ul> <p>Update production button – The user presses the update schedule button.</p> <ul style="list-style-type: none"> <li>– Join the ScheduleDB and the OrdersDB</li> <li>– Select all records with Scheduleversion = "A"</li> <li>– Build the display for transaction UP 1.0.1</li> </ul> <p>Merge with Actual Schedule button – The user highlights a schedule and presses the merge with actual schedule button.</p> <ul style="list-style-type: none"> <li>– Join the OrderDB and ScheduleDB (only records where ScheduleDB records exists).</li> <li>– Select all records with version = "A" or version = "X"</li> <li>– Sort on Line number on version on sequence number (this should segment by line, putting all active schedule jobs first, then VX jobs).</li> <li>– For each line number, renumber sequence from 1 to N.</li> </ul> |
|---|--|

**Figure 11C**  
**Transaction Summary – Schedule Press, View Schedule (Process 3.1.1)**

**Schedule Order - View Scheduled And Unscheduled Orders**

CONFIDENTIAL Screen No Sch 3.1.1

**Initial Processing**

- See transaction SCH 3.0.1 for details on how to build the “tab panes” for this screen.
- Get start date and start time from the schedule-timeDB process-step = “Print”, Version = “X”, and Line-no = “L”

**User Workflow & Resultant Processing**

- Typical
  - Go to scheduled portion of the screen and click on the tab for the line # to be scheduled
  - Go to the unscheduled portion of the screen and click on the tab for the group of orders to be used as candidates for scheduling (this may be a capacity group, the pool, or all orders)
  - Scroll through both sections of the screen and find order to be scheduled and the location for it.
  - Click on the order to be scheduled
  - Transfer control to transaction Sch 3.1.2 passing line number for scheduled orders and line number and order number for unscheduled orders.
- Exceptional
  - Adj Start t button – The user will change the displayed start date and start time and click on the Adj Start t button.
  - Save the new start date and start time in the schedule time DB using process step, schedule V# and line-no.
  - Starting with first order (in sorted sequence) and continuing through the list, calculate new start times.
    - New start time = start time from last job + run time from last job + changeover time to this job.

**Figure 11C (Continued)**

**Transaction Summary – Schedule Press, View Schedule (Process 3.1.1)**

## User Workflow & Resultant Processing

**Sort button** – The user will click on the sort button.

- Bring up a sort menu with all of the order characteristics. Allow the user to pick "sort on" criteria and hit OK. Resort the unscheduled orders based on the sort criteria.

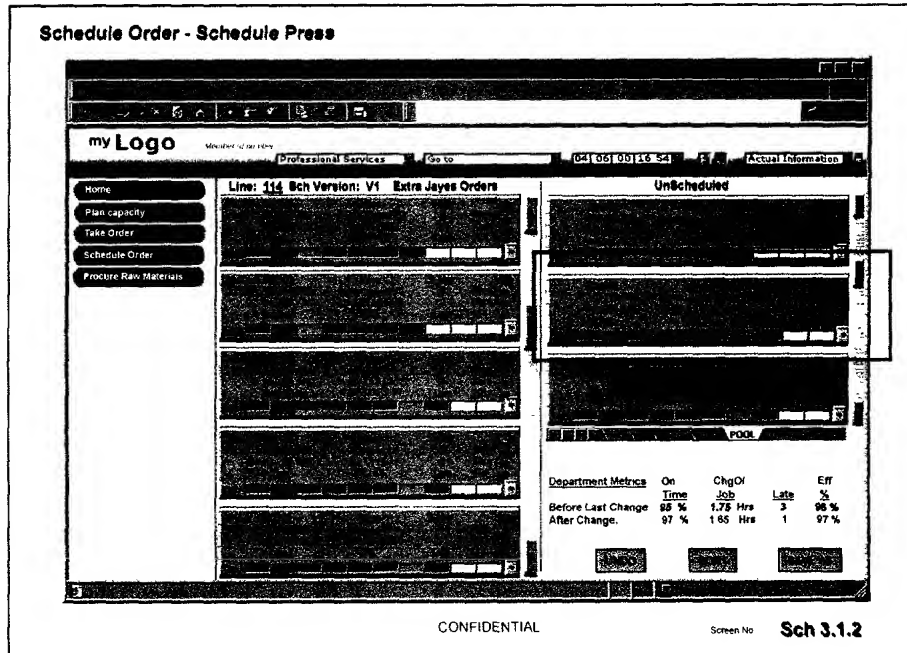
**Find button** – User will click on the find button

- Bring up a find dialog box so the user can key in an order number. Search the unscheduled list and adjust the display to show the “find” order in the middle of the unscheduled window.

## Notes

- Initial processing for this screen should be done on transaction SCH 3.0.1. For performance reasons, it may make sense to build the default tabs in transaction SCH 3.0.1 and then build the subsequent tabs in the background.

**Figure 11D**  
**Transaction Summary – Schedule Press, View Schedule (Process 3.1.2)**



#### Initial Processing

- Use the datasets created in SCH3.1.1.
- Build the job bars using DB information from the orders DB.
- Indicator lights
  - Top light – Ontime light
  - = green if xworks date – ship date > 2,
  - = yellow if xworks ship date – xworks-date <= 2
  - = red if xworkds ship date – xworkds-date < 0
  - Next light – Film light
  - = green if film exists
  - = yellow if film arrives on production day
  - = red if no film
  - Next light – Cylinder
  - = green if cylinders exists
  - = yellow if cylinders arrives on production day
  - = red if no cylinders by production day
  - Next light – Next Step light
  - = green if xworks date for next step > this step
  - = yellow if xworks date for next step = this step
  - = red if xworks step for next step < this step

#### User Workflow & Resultant Processing

- Typical
  - User will scroll through the scheduled orders and look for a good position to schedule the order they are interested in
  - User will go to the unscheduled portion of the screen and click on the order they want to schedule.

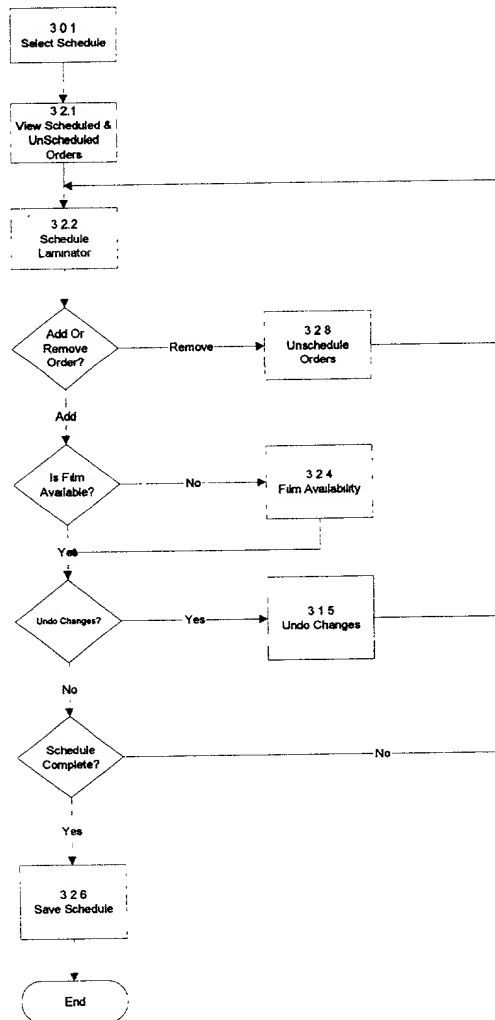


### Figure 11D (Continued)

#### Transaction Summary – Schedule Press, View Schedule (Process 3.1.2)

|   |  |
|---|--|
| User Workflow &<br>Resultant Processing | <ul style="list-style-type: none"><li>• Typical (continued)<ul style="list-style-type: none"><li>– User will drag the order to the position on the scheduled portion of the screen that they want to schedule the order</li><li>– Execute Alg Schedule Order</li><li>– User will review the department metrics and schedule indicator lights</li></ul></li><li>• Exceptional<ul style="list-style-type: none"><li>Undo button – The user clicks on the “undo” button.<ul style="list-style-type: none"><li>– Remove (undo) the last order scheduled</li><li>– Recalculate the changeover times</li><li>– Recalculate the start times</li><li>– Recalculate the department metrics</li></ul></li><li>Sort button – The user will click on the sort button.<ul style="list-style-type: none"><li>– Bring up a sort menu with all of the order characteristics. Allow the user to pick “sort on” criteria and hit OK. Resort the unscheduled orders based on the sort criteria.</li></ul></li><li>Save As button – The user will click on the Save As button.<ul style="list-style-type: none"><li>– Bring up a file save dialog box and allow the user to save the schedule as V1, V2, V3, V4, V5. If one of those already exists, ask the user if they want to overwrite it.</li><li>– Take all of the scheduled orders and goto the scheduleDB and change the Version column to the Save as X version. For example, the user may have originally done a “get schedule” on version V1, made some changes and decided to save as V2.</li></ul></li></ul></li></ul> |
| Notes                                   | <ul style="list-style-type: none"><li>• None</li></ul>   |

**Figure 11E**  
**Schedule Laminator (Process 3.2)**

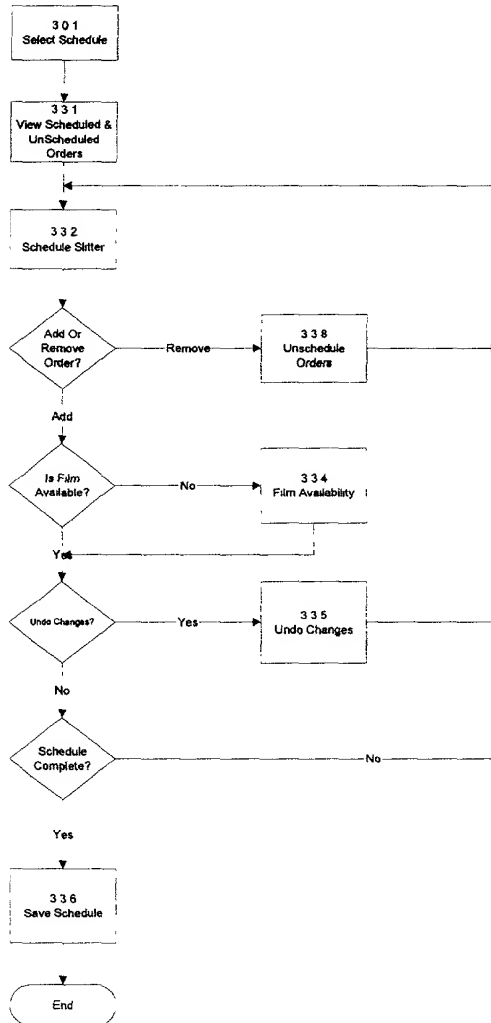


- Select a Schedule (Process 3.0.1). Gives the user the ability to select the schedule they would like to work on. A user may have several "versions" of a schedule.
- View Scheduled & Unscheduled Orders (Process 3.2.1). Gives the user split screen capability (of the schedule they have selected) to view a line schedule on one side and a specified group of unscheduled orders on the other side of the screen.

**Figure 11E (Continued)**  
**Schedule Laminator (Process 3.2)**

- Schedule Laminator (Process 3.2.2). Gives the user the ability to schedule a laminator by selecting the job to schedule and dragging it onto the schedule in the desired position. The schedule is automatically adjusted. Scheduling statistics and job indicator lights are provided to help the user assess the impact of the change.
- Film Availability (Process 3.2.4). When a job is scheduled there is an instantaneous check on film availability. If film is not going to be ready then this transaction will show the user a view of film inventory. The user can do a query on film sizes that are close to the desired size and may elect to "use" some of film for this job.

**Figure 11F**  
**Schedule Slitter (Process 3.3)**

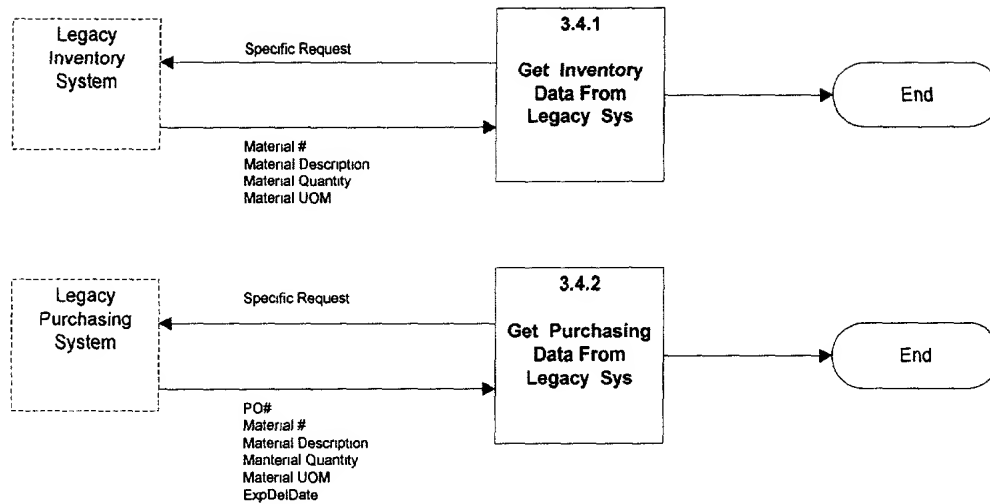


- Select a Schedule (Process 3.0.1). Gives the user the ability to select the schedule they would like to work on. A user may have several “versions” of a schedule.
- View Scheduled & UnScheduled Orders (Process 3.3.1). Gives the user split screen capability to select a line schedule on one side and a specified group of unscheduled orders on the other side of the screen.

**Figure 11F (Continued)**  
**Schedule Slitter (Process 3.3)**

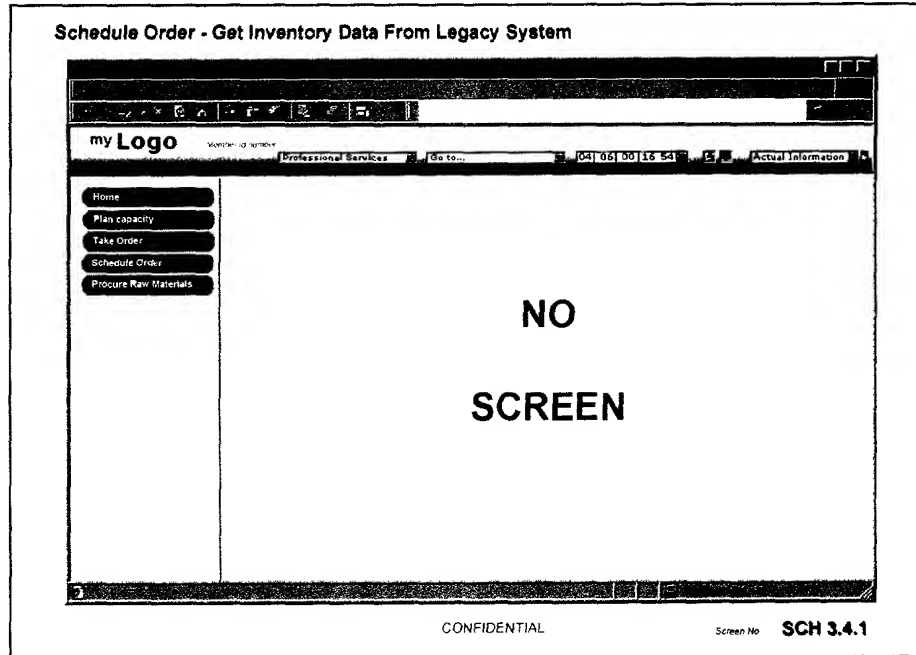
- Schedule Slitter (Process 3.3.2). Gives the user the ability to schedule a slitter by selecting the job to schedule and dragging it onto the schedule in the desired position. The schedule is automatically adjusted. Scheduling statistics and job indicator lights are provided to help the user assess the impact of the change.

**Figure 11G**  
**Inventory / Purchasing Interface (Process 3.4.1 & 3.4.2)**



- Get Inventory Data From Legacy System (Process 3.4.1). As orders are scheduled, inventory data on the required film and cylinders is retrieved from the legacy system. This data is used for raw material availability checking.
- Get Purchasing Data From Legacy System (Process 3.4.2). As orders are scheduled, purchasing data on the required film and cylinders is retrieved from the legacy system. This data is used for raw material availability checking.

**Figure 11H**  
**Transaction Summary – Get Inventory Data From Legacy System (Process 3.4.1)**



**Initial Processing**

- Receive order number and item number from SCH 3.1.2
- Get Bill of Material (BOM) items from BOM DB using Item number
- For each BOM item with class = "Film", send request to inventory legacy system
- Store returned inventory values
- For each BOM item with class = "Cylinder", send request to inventory legacy system
- Store returned inventory values

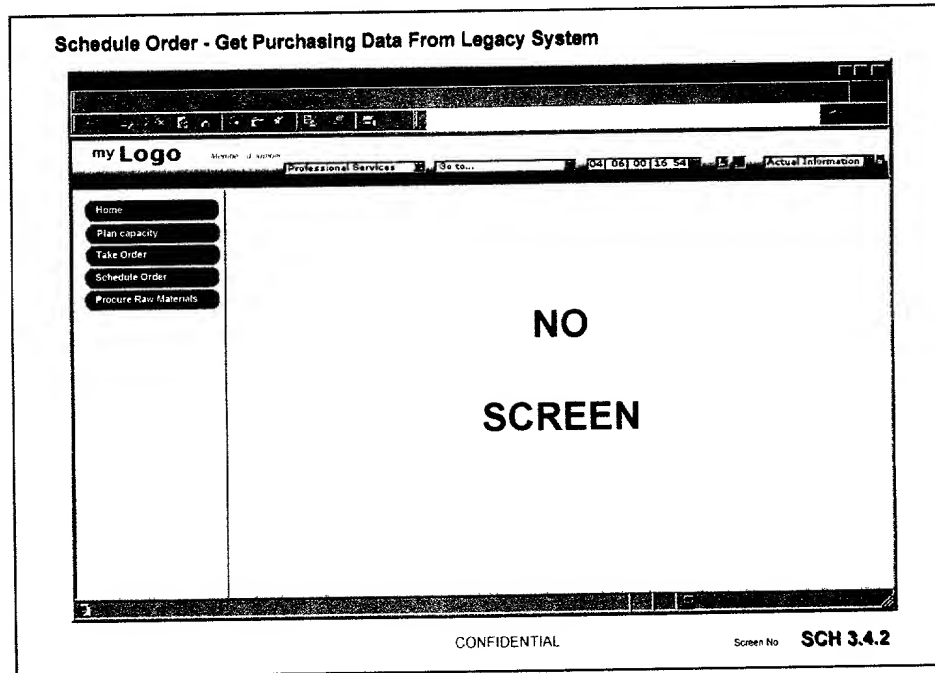
**User Workflow & Resultant Processing**

- Typical

**Notes**

- None

**Figure 111**  
**Transaction Summary – Get Purchasing Data From Legacy System (Process 3.4.2)**



**Initial Processing**

- Receive order number and item number from SCH 3.1.2
- Get BOM items from Bom DB using Item number
- For each BOM item with class = "Film", send request to purchasing legacy system
- Store returned purchasing values
- For each BOM item with class = "Cylinder", send request to purchasing legacy system
- Store returned purchasing values

**User Workflow &  
Resultant Processing**

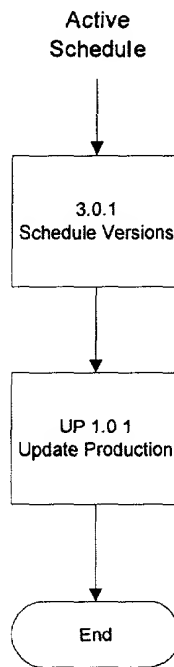
- Typical

**Notes**

- None



**Figure 11J**  
**Update Order And Schedule Status (Process 3.5)**



- Schedule Versions (Process 3.0.1). The update production screen is accessed from the schedule versions screen. You may only update the active schedule from this screen. From the screen, push the "Update Production" button.
- Update Production (Process UP1.0.1) From this screen, the user can update the schedule and readjust the start time of the active job.

**Figure 11K**  
**Transaction Summary – Schedule Versions (Process 3.5.1)**

**Schedule Order - Schedule Versions**

my Logo    Professional Services    04/06/00 16:54    Actual Information

Home  
Plan capacity  
Take Order  
Schedule Order  
Procure Raw Materials

**Schedule Versions**

Process Step: Printing

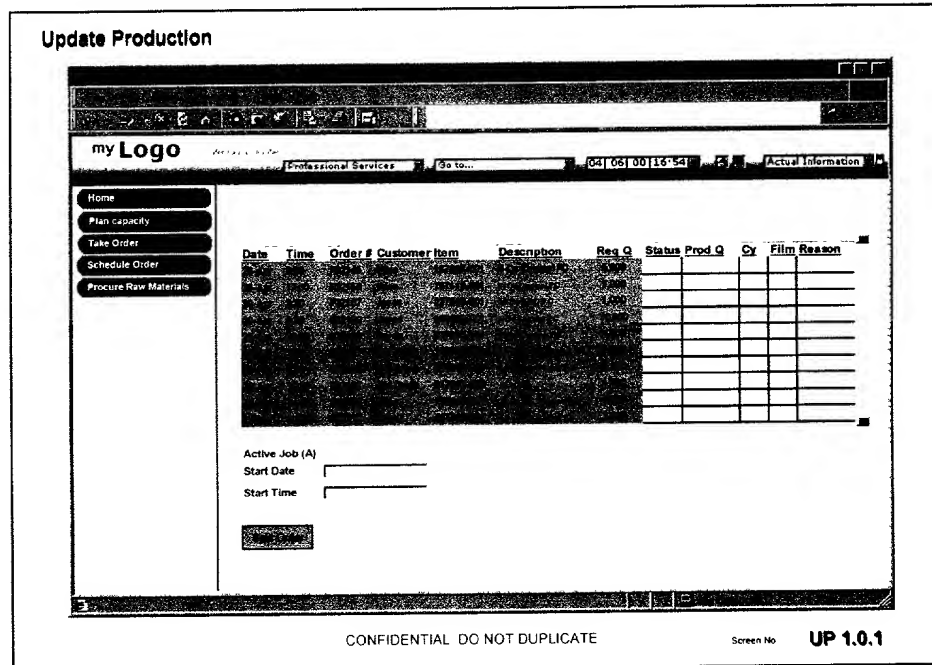
| Version | Date      | Comment                           |
|---------|-----------|-----------------------------------|
| A       | 8/15/2000 | Active Schedule                   |
| V1      | 8/15/2000 | Extra Jayes Orders                |
| V2      | 8/15/2000 | Extra Jayes Orders + Volume Split |
| V3      | 8/15/2000 | No Extra Orders                   |
| V4      |           |                                   |
| V5      |           |                                   |

Get Schedule    Delete Schedule    Update Production    Merge With Active Schedule

CONFIDENTIAL DO NOT DUPLICATE    Screen No    **SCH 3.0.1**

- |                                      |  |
|--------------------------------------|--|
| Initial Processing                   | <ul style="list-style-type: none"> <li>• Default process step to printing</li> <li>• Lookup and display existing schedule version data on the schedule-version db using converter-no and process step.</li> </ul>  |
| User Workflow & Resultant Processing | <ul style="list-style-type: none"> <li>• Typical               <ul style="list-style-type: none"> <li>– User will click on the “Update Production” button</li> <li>– System will lookup the Active schedule on the schedule DB and transfer control to UP1.0.1 Update Production.</li> </ul> </li> </ul> |
| Notes                                | <ul style="list-style-type: none"> <li>• None</li> </ul>   |

| Year | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 | 2061 | 2062 | 2063 | 2064 | 2065 | 2066 | 2067 | 2068 | 2069 | 2070 | 2071 | 2072 | 2073 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 2080 | 2081 | 2082 | 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 | 2061 | 2062 | 2063 | 2064 | 2065 | 2066 | 2067 | 2068 | 2069 | 2070 | 2071 | 2072 | 2073 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 2080 | 2081 | 2082 | 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 |      |



## Initial Processing

- Display input screen with first six fields filled in from the active schedule.

## User Workflow & Resultant Processing

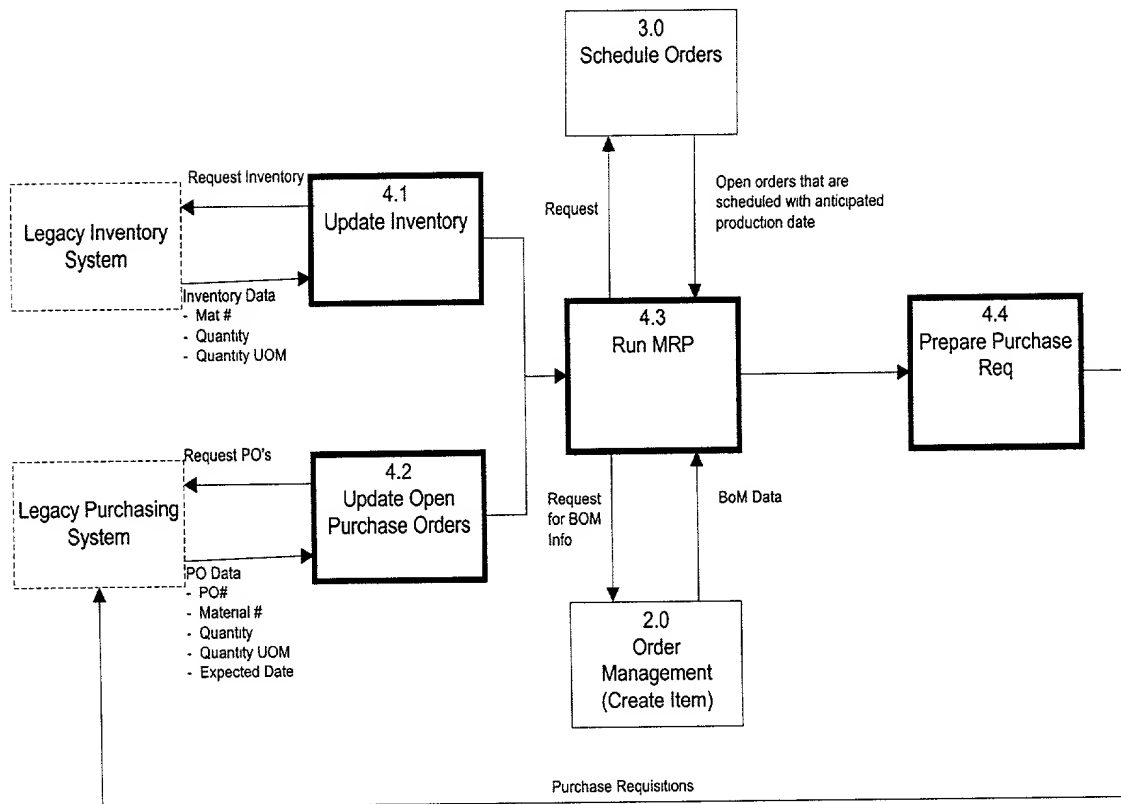
- Typical
  - User will fill in the Status, Prod Q, Cy, Film, and Reason columns for all pertinent orders. See glossary section for a list of acceptable codes.
  - User will mark the active job in the status column with an “A” and put the actual start date and start time below in the Active Job section of the screen.
  - The system will resort and recalculate the start times for all of the active jobs left on the schedule.
- Exceptional
  - User will highlight a row (order) and click on the “Split Order” button.
  - The system will split the order into two orders with a suffix of –A and –B.
  - The user will fill in the pertinent data columns for the split job.

## Notes

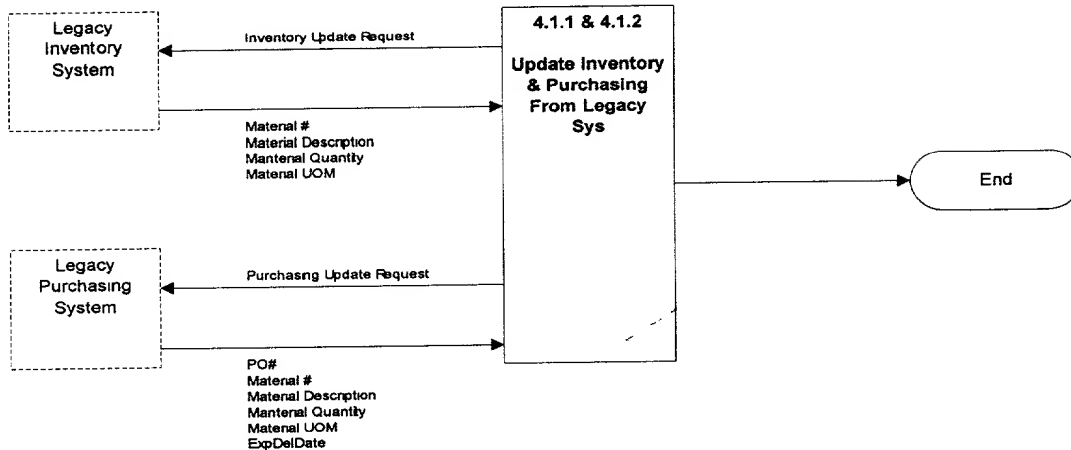
- None

Figure 12

Material Requirements Planning Functional Overview



**Figure 12A**  
**Inventory / Purchasing Interface (Process 4.1, 4.2)**



- Update Inventory & Purchasing From Legacy System (Processes 4.1.1 & 4.1.2). At the beginning of the MRP process it is critical to have an inventory load and PO load from the Legacy systems. Prior to the loading inventory and PO's will be cleared such that the Legacy load is a complete reload of data. This approach eliminates the problem of keeping 2 systems in synch. The legacy system is the master system and the present invention simply accepts the inventory and PO loads it is given.

The load is initiated via transactions 4.1.1 and 4.1.2, which request data from the Legacy system.

Inventory Request (4.1.1)

Legacy returns - For all raw materials

Material #, material description, material quantity and material unit of measure

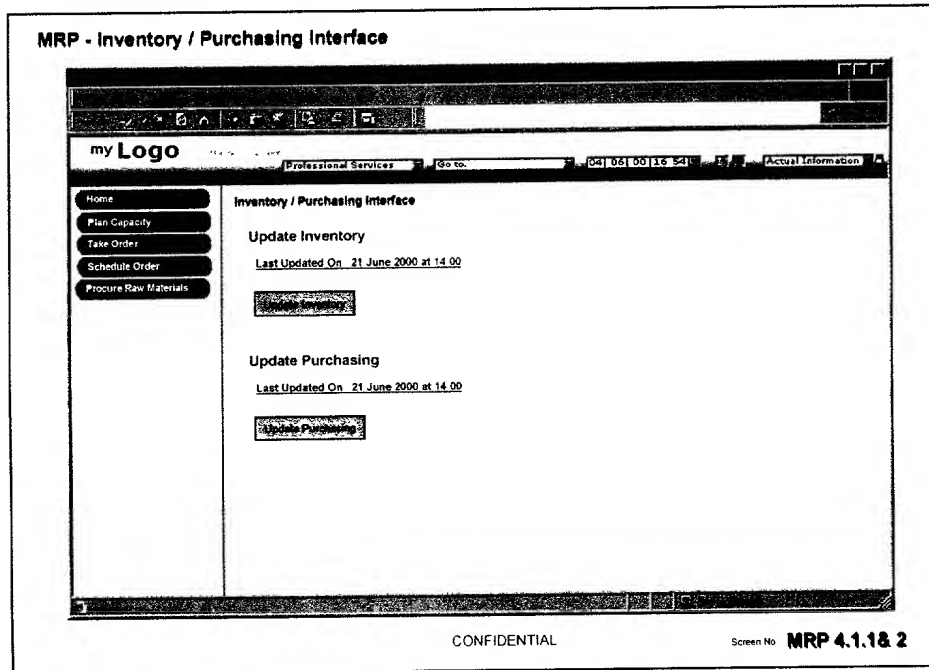
Purchasing Request (4.1.2)

Legacy returns - For all raw materials

PO#, material #, material description, material quantity, material unit of measure, and the expected delivery date

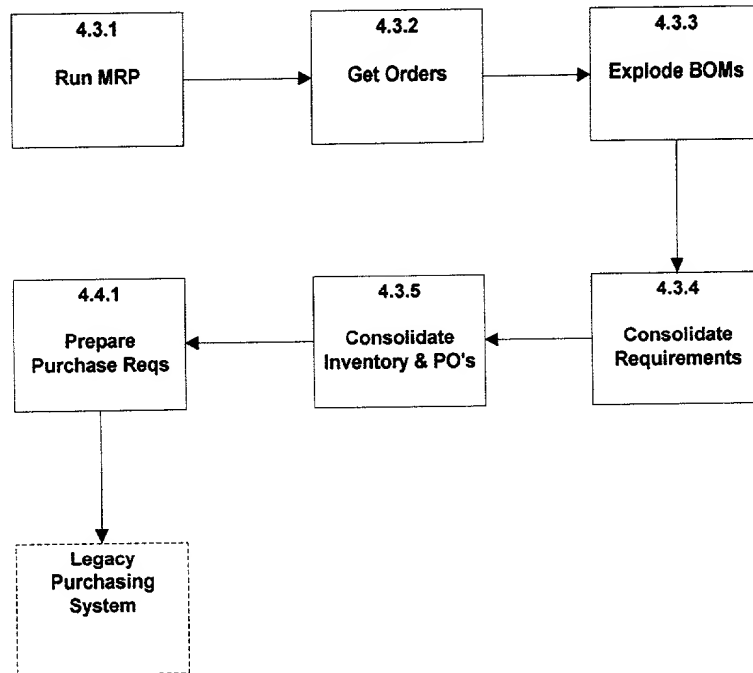
The material numbers in the bills of material should be identical to the material numbers being used in the legacy system.

**Figure 12B**  
**Update Inventory & Purchasing From Legacy System (Process 4.1.1 & 4.1.2)**



- |                                      |  |
|--------------------------------------|--|
| Initial Processing                   | <ul style="list-style-type: none"> <li>• Lookup date and time of previous download on Download DB</li> </ul>   |
| User Workflow & Resultant Processing | <ul style="list-style-type: none"> <li>• Typical           <ul style="list-style-type: none"> <li>– User will click on Update Inventory</li> <li>– User will click on Update Purchasing</li> </ul> </li> </ul> |
| Notes                                | <ul style="list-style-type: none"> <li>• None</li> </ul>   |

**Figure 12C**  
**Run MRP, Prepare Purchase Requirements (Process 4.3, 4.4)**



- Run MRP (Process 4.3.1 - 4.4.1) MRP uses both scheduled and unscheduled orders to determine requirements. The Bills of Materials (BOMs) for these orders are exploded to create a list of requirements. This list is then consolidated by material by day. Once this is done, inventory and PO's are consolidated into a list by material by day of inventory. The two lists are compared to generate an overall purchase requisition list.

**Figure 12D**  
**Transaction Summary – Run MRP (Process 4.3.1)**

**Procure Raw Materials - Run MRP : Choose Parameters**

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Screen No **MRP 4.3.1**

**Initial Processing**

- Lookup the current week number on CalenderDB
- Default "From" to the current week and "To" to current week + 3

**User Workflow &  
Resultant Processing**

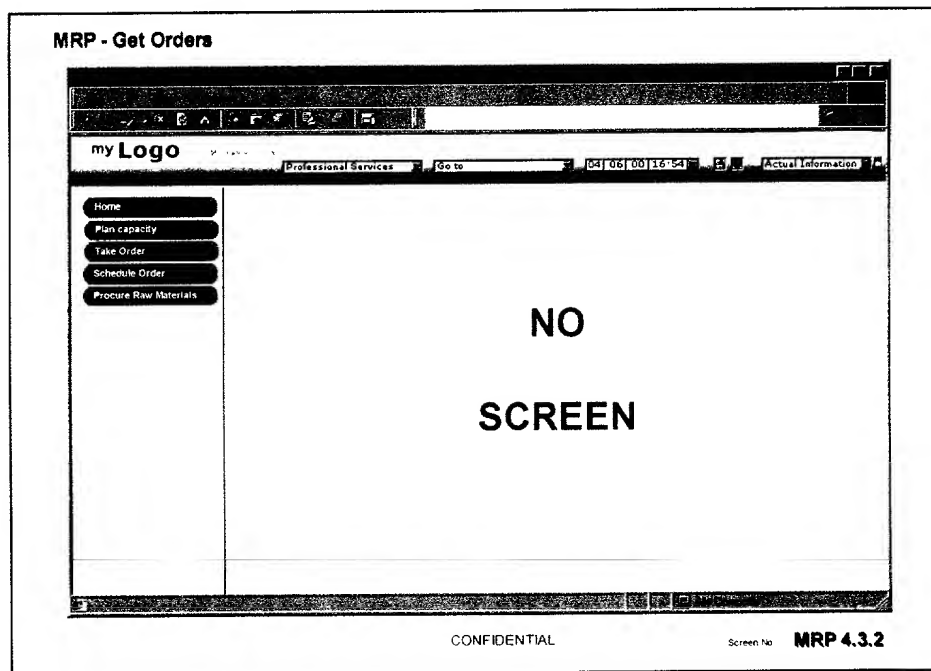
- Typical
  - User will edit the from and to weeks or dates
  - User will check off the materials that they would like to run MRP for
  - User will click on the "Run MPR" button
  - If user has filled in weeks, calculate the "from" and "to" dates using "from" and "to" weeks
  - Get all orders on the Orders DB that have date-xworks-print or date-xworks-lam between these two dates
  - For all of these orders, get all material #'s in the BOM by doing a lookup on BOM DB using Item #
  - Select only those materials where MaterialClass = one of the selected classes from the MRP screen
  - For each material, calculate a required order quantity
  - If BOM item UOM ≠ BOM basis UOM then convert BOM basis UOM
    - Imps to kg = IMPs \* (width \* cutoff)/1000/1000 / yield
    - Kg to Imps = KG \* yield \* 1000 \* 1000 / (width \* cutoff)
  - Required Order Quantity = (Gross Order Quantity / BOM Basis quantity) \* item bom quantity
  - Sort all bom items, for all selected orders on item number and on date required, subtotal on required order quantity (by date)
  - For each item calculate an on hand quantity = Inventory – sum of all item quantities from earlier dates
  - For each item calculate an on order quantity = sum of all item po's from earlier dates, up to the "to" date



### Transaction Summary – Run MRP (Process 4.3.1)

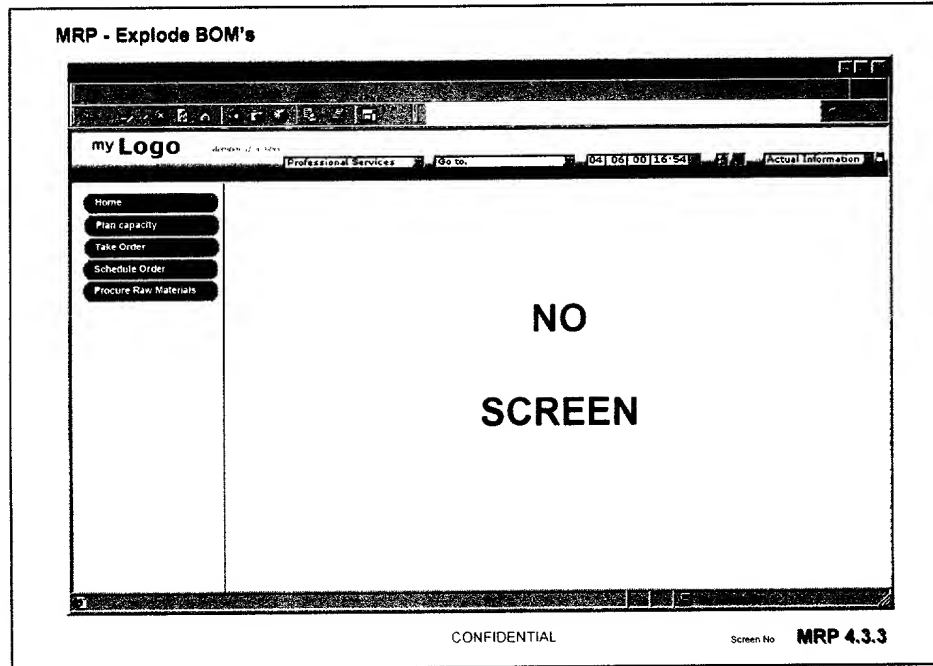
- None

**Figure 12E**  
**Transaction Summary – Get Orders (Process 4.3.2)**



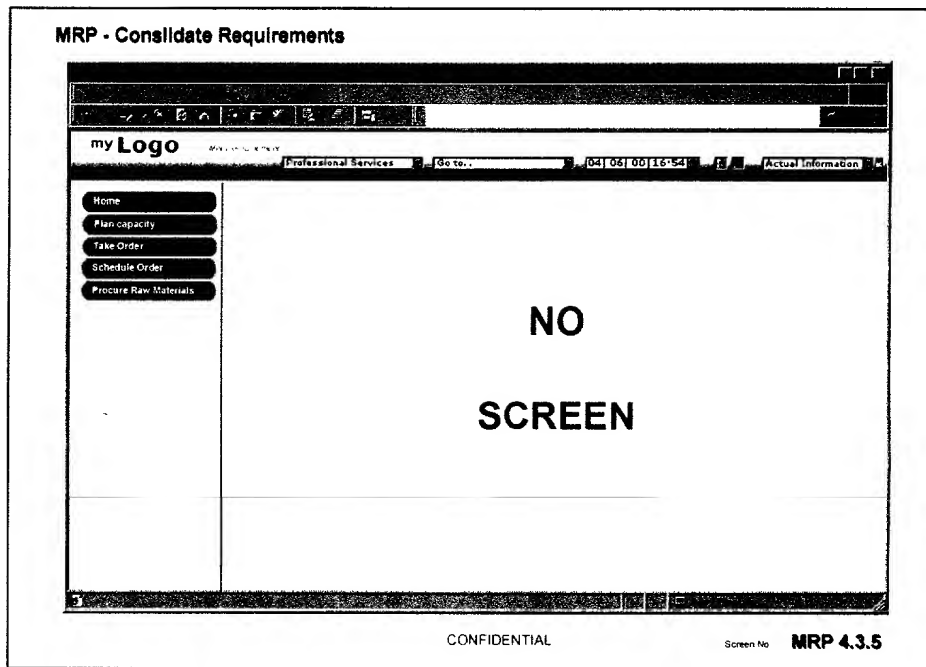
- |                                      |   |
|--------------------------------------|---|
| Initial Processing                   | <ul style="list-style-type: none"> <li>• Receive "from" and "to" weeks from MRP transaction</li> <li>• Calculate from and to dates</li> <li>• Get all orders on the Orders DB that have Xworks dates between these two dates</li> </ul> |
| User Workflow & Resultant Processing | <ul style="list-style-type: none"> <li>• Typical</li> </ul>   |
| Notes                                | <ul style="list-style-type: none"> <li>• None</li> </ul>  |

**Figure 12 F**  
**Transaction Summary – Explode BOM's (Process 4.3.3)**



- |                                      |  |
|--------------------------------------|--|
| Initial Processing                   | <ul style="list-style-type: none"> <li>• For each of the orders in 4.3.2 <ul style="list-style-type: none"> <li>• Get list of bom items by doing a lookup on BOM db using Item #</li> <li>• For each item calculate a required quantity</li> </ul> </li> </ul> <p>Required Quantity = (Gross Order Quantity/Bom Basis Q)*Item BOM Quantity</p> |
| User Workflow & Resultant Processing | <ul style="list-style-type: none"> <li>• Typical</li> </ul>  |
| Notes                                | <ul style="list-style-type: none"> <li>• None</li> </ul>   |

**Figure 12G**  
**Transaction Summary – Explode BOM's (Process 4.3.4)**



- |                                      |   |
|--------------------------------------|---|
| Initial Processing                   | • Sort BOM items on item number and on date |
| User Workflow & Resultant Processing | • Typical                                   |
| Notes                                | • None                                      |